1967

CENSUS OF MINERAL INDUSTRIES

VOLUME II

AREA STATISTICS

LIBRARY

BUREAU OF THE CENSUS

236826

CONTENTS

	Page
General Summary	
Introduction	1
General Summary Tables	15
Appendix A: Explanation of Terms	A-1
Appendix B: Industry Descriptions	B-1
Appendix C: Authority for Census: Title 13, United States Code	C-1
Appendix D: Alphabetic Index of Products and Services of Mineral Establishments	D-1
Appendix E: Census Report Forms	E-1

Geographic Divisions:	
New England	NE-2
Middle Atlantic	MA-7
East North Central	ENC-14
West North Central	WNC-21
South Atlantic	SA-28
East South Central	ESC-35
West South Central	WSC-42
Mountain	M-49
Pacific	P-56

State Chapters:	Page	**State Chapters:**	Page
Alabama	1-1	Montana	25-1
Alaska	2-1	Nebraska	26-1
Arizona	3-1	Nevada	27-1
Arkansas	4-1	New Hampshire	28-1
California	5-1	New Jersey	29-1
Colorado	6-1	New Mexico	30-1
Connecticut	7-1	New York	31-1
Florida	8-1	North Carolina	32-1
Georgia	9-1	North Dakota	33-1
Hawaii	10-1	Ohio	34-1
Idaho	11-1	Oklahoma	35-1
Illinois	12-1	Oregon	36-1
Indiana	13-1	Pennsylvania	37-1
Iowa	14-1	Rhode Island	38-1
Kansas	15-1	South Carolina	39-1
Kentucky	16-1	South Dakota	40-1
Louisiana	17-1	Tennessee	41-1
Maine	18-1	Texas	42-1
Maryland, Delaware, and District of Columbia	19-1	Utah	43-1
Massachusetts	20-1	Vermont	44-1
Michigan	21-1	Virginia	45-1
Minnesota	22-1	Washington	46-1
Mississippi	23-1	West Virginia	47-1
Missouri	24-1	Wisconsin	48-1
		Wyoming	49-1

1967 CENSUS OF Mineral Industries



MIC67(1)-1

Census
REF
HD
9506
.U62
U49x
1967b
v.2

SUBJECT SERIES

General Summary

Issued June 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
James T. Lynn, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

BUREAU OF THE CENSUS
LIBRARY

Contents

		page
	Introduction	1
TABLE 1	General Statistics: 1967 and Earlier Years	15
2	Detailed Statistics by Industry Group and Industry: 1967 and 1963	16
3	Selected Statistics by Geographic Areas: 1967 and 1963	20
4	Industry Shipments and Receipts and Net Shipments of Primary Products: 1967	22
5	Employment at Central Administrative Offices and Related Facilities by Industry Groups and Industries: 1967 and 1963	24
6	Employment at Central Administrative Offices and Related Facilities by Divisions and Selected States: 1967 and 1963.	25
7	1967 Bureau of the Census and Bureau of Mines Statistics Compared	26
APPENDIX A	Explanation of Terms	A-1
B	Industry Descriptions	B-1
C	Authority for Census: Title 13, United States Code	C-1
D	Alphabetic Index of Products and Services of Mineral Establishments	D-1
E	Census Report Forms	E-1

Introduction

I. GENERAL BACKGROUND

1. The Economic Censuses
2. Economic Significance of the Mining Sector
3. Role of the Census of Mineral Industries
4. Industry and Product Classification
5. Geographic Classification

II. METHODS

6. Planning and Preparation
7. Reporting Forms
8. The Mailing Lists
9. Geographic Area Coding
10. Data Collection
11. Data Processing
12. Coverage and Accuracy
13. Cooperation with Bureau of Mines

III. COMMENTS ON STATISTICAL MEASURES AND TABLES

14. Employment and Payrolls in Administrative Offices and Auxiliary Establishments
15. Materials
16. Value of Shipments by Multiunit Companies
17. Value Added by Mining
18. Capital Expenditures
19. Subject Reports
20. Confidentiality
21. Abbreviations

I. GENERAL BACKGROUND

1. THE ECONOMIC CENSUSES

General.—The economic censuses provide a comprehensive statistical profile of a large segment of the national economy. In 1967, these censuses accounted for nearly 70 percent of the $555 billion of national income originating in the private sector. The principal industry groups not covered were finance, insurance, and real estate; agriculture and forestry; communications; and electric, gas, and sanitary services.

Uses and Users of Census Data.—The economic censuses are the primary source of facts about the structure and functioning of the economy and therefore provide information essential both for government and business. They furnish an important part of the framework for such composite measures as the national accounts. The census measures also provide weights and serve as benchmarks for current surveys of industrial activity and for indexes of industrial production, productivity, and price, all of which are essential in developing the general background for understanding particular economic situations.

There is widespread use of the economic censuses by manufacturers, mining companies, and distributors who need to establish measures of their potential markets in terms of areas, kinds of business, and kinds of products; and by management in various industries and trades which needs facts for purposes of economic or sales forecasting, for analysis of sales performance, for the layout of sales territories, for the allocation of advertising budgets, and for the location of plants, warehouses, and stores. For these business purposes, census facts are invaluable. Likewise, trade and professional associations need census information to learn how their industry is changing; chambers of commerce need to know how their community is changing. State and local governments need to understand the business structure and changes occurring in their areas. Business magazines rely on census facts as background for many of their articles.

Following every census, reports are purchased by thousands of business and other users; likewise, census facts are widely disseminated by trade associations, business journals, and the daily press; census volumes are available in all the major public and college libraries.

History.—The first statistical survey which can be called an economic census covered the year 1809, when inquiries on manufacturing were included with the 1810 census of population. Although the results of this pioneer effort were unsatisfactory by modern standards,[1] continued interest in measurement of the Nation's economic progress led to successive improvements during the 19th century. By 1890, the statistical standards and procedures followed in conducting the censuses were of a fully professional quality.

All of the decennial censuses from 1810 through 1940, with the exception of 1830, included questions on manufacturing. Inquiries on mining first appeared in 1840, and censuses of mineral industries were conducted decennially through 1940. Although some business-related data were collected in 1840, the first census of business was taken for the year 1929. This included retail trade, wholesale trade, and construction: selected service trades were covered beginning with 1933. Dates of these and other economic censuses from 1809 are shown in table A.

Enterprise Statistics.—The coordinated collection and tabulation of comparable data for several sectors beginning with 1954 has permitted the Census Bureau to develop its enterprise statistics program, which relates census company-level data to the establishment data. Thus, a measurement of the integration and diversification of the American enterprise system becomes available. Also, through the enterprise statistics program, it has become possible to link census establishment-based data on a modified basis to other statistical systems such as the Internal Revenue Service's "Statistics of Income" for corporations.

Legal Provisions.—Title 13 of the United States Code specifies the frequency of the censuses, the kinds of activities to be covered, the obligation to report, the penalties for failure to report, and the confidentiality of returns. It also authorizes the use of sampling techniques in conducting censuses. As amended in 1964, Title 13 requires the economic censuses to be taken at

[1] For an appraisal of early censuses of manufacturing, see Meyer H. Fishbein, *The Censuses of Manufactures 1810-1890.* National Archives Publication No. 63-22, June 1963. Government Printing Office.

TABLE A. Years Covered by U.S. Economic Censuses: 1809 to 1967

Year covered	Manufactures	Minerals	Fisheries	Construction	Retail and wholesale trade	Selected services	Transportation
1809.....	x	-	-	-	-	-	-
1819.....	x	-	-	-	-	-	-
1839.....	x	-	-	-	-	-	-
1840.....	-	x	-	-	-	-	-
1849.....	x	-	-	-	-	-	-
1850.....	-	x	-	-	-	-	-
1859.....	x	-	-	-	-	-	-
1860.....	-	x	-	-	-	-	-
1869.....	x	-	-	-	-	-	-
1870.....	-	x	-	-	-	-	-
1879.....	x	-	-	-	-	-	-
1880.....	-	x	x	-	-	-	-
1889.....	x	x	x	-	-	-	-
1899.....	x	-	-	-	-	-	-
1902.....	-	x	-	-	-	-	-
1904.....	x	-	-	-	-	-	-
1908.....	-	-	x	-	-	-	-
1909.....	x	x	-	-	-	-	-
1914.....	x	-	-	-	-	-	-
1919.....	x	x	-	-	-	-	-
1921.....	x	-	-	-	-	-	-
1923.....	x	-	-	-	-	-	-
1925.....	x	-	-	-	-	-	-
1927.....	x	-	-	-	-	-	-
1929.....	x	x	-	x	x	-	-
1931.....	x	-	-	-	-	-	-
1933.....	x	-	-	-	x	-	-
1935.....	x	x	-	x	x	x	-
1937.....	x	-	-	-	-	-	-
1939.....	x	x	-	x	x	x	-
1947.....	x	-	-	-	-	-	-
1948.....	-	-	-	-	x	x	-
1954.....	x	x	-	-	x	x	-
1958.....	x	x	-	-	x	x	-
1963.....	x	x	x	-	x	x	x
1967.....	x	x	x	x	x	x	x

5-year intervals, covering the years ending in "2" and "7." The next censuses will cover the year 1972. The pertinent portions of Title 13 are quoted in appendix C.

2. ECONOMIC SIGNIFICANCE OF THE MINING SECTOR

The mineral industries in recent years have accounted for less than 2 percent of national income and have required employment of less than 2 percent of all gainful workers in the United States. Nevertheless, the mineral industries furnished an increasing proportion of the raw materials base of the economy. In 1966, the mining industries supplied 35.5 percent of all raw materials produced; agricultural materials, 58 percent; forest products, 5.5 percent; and fishery and wildlife products, 1 percent. This may be compared with averages for the first decade of this century when mineral products accounted for only 17 percent of all raw materials. Table B compares such figures for four periods in the last half century.

TABLE B. Percent Distribution of Raw Materials Production for Selected Periods: 1900 to 1964

Raw materials group	1900-09 average	1920-29 average	1950-59 average	1960-66 average
All raw materials...	100	100	100	100
Minerals.....	17	26	33	34
Agricultural materials	67	62	60	60
Forest products.....	15	10	6	5
Fishery and wildlife products.....	1	1	1	1

Source: U.S. Bureau of the Census and Bureau of Mines, Raw Materials in the United States Economy: 1900-1966 (Working Paper No. 30).

Mineral production in the United States requires relatively larger capital expenditures than does manufacturing production. Although value added in mining in 1967 amounted to only 6.9 percent of total value added for mining and manufacturing combined, capital expenditures in the mineral industries were 15.3 percent of the total for mining and manufacturing (see table C). Moreover, the oil and gas extraction industries alone accounted for 11.3 percent of all capital expenditures for mining and manufacturing. In comparing figures in table C, it should be noted that value added in mining includes a measure of value added in the development of mineral properties (see section 17) and capital expenditures include expenditures for development of mineral properties (see section 18).

TABLE C. Value Added, Employment, and Capital Expenditures in Mineral and Manufacturing Industries: 1967

Item	Value added (million dollars)	Capital expenditures (million dollars)	Employment (1,000)
Mineral industries:			
All mining.....	19,330.2	4,057.8	567.3
Oil and gas extraction only....	13,394.3	3,004.6	244.9
Manufacturing industries.....	261,983.8	22,469.9	19,322.9
Mineral industries as percent of mineral and manufacturing industries:			
All mining.....	6.9	15.3	2.9
Oil and gas extraction only....	4.8	11.3	1.2

3. ROLE OF THE CENSUS OF MINERAL INDUSTRIES

In the farm-oriented economy of the 19th century, mining statistics played a relatively small role in government policy formation. The only sources of information on the mining sector were the censuses of mineral industries, then taken at 10-year intervals. Today, the need for mining statistics has greatly increased, and the user finds a vast array of detailed information covering virtually every measurable aspect of industrial activity including employment, payrolls, hours worked, production, prices, inventories, orders, investment in structures, machinery, and equipment, and consumption of raw materials, fuels, and water. Many of these statistics are available at frequent intervals and on a timely basis. Sophisticated indicators of economic progress have also been developed such as price and production indexes, gross national product, and national income, published at monthly or quarterly intervals.

In this setting, the census of mineral industries still plays an essential role since no other source provides such comprehensive and detailed information on the structure of the industrial sector. In effect, the census obtains, for every mining establishment with one employee or more, data on its input of labor, materials, and capital, its output of products and services, and its location. These facts are obtained in sufficient detail to permit classification by industry, by size of plant and, where desirable, by type of operation, kind of equipment, relationship to other plants of the same firm, and other characteristics.

General statistics (that is, total employment, payroll, production-worker employment, man-hours, wages, cost of materials, value of shipments, inventories, capital expenditures, and value added by mining) from the census of mineral industries are published by industry, by area, and by employment size of establishment. Information is supplied on the detailed industrial characteristics of each State and overall measures of mining activity are shown at the county level.

The census of mineral industries is a benchmark for updating indicators of economic activity. It provides very important information on the mining segment used in the national income accounts. Census data on materials consumed and product output are basic to the mining sector of the input-output studies of the Office of Business Economics. The information derived from the census of mineral industries is also used to develop indexes of industrial production for census years. These indexes are used as benchmarks for the monthly Federal Reserve Board index of industrial production—a key indicator of current economic activity.

4. INDUSTRY AND PRODUCT CLASSIFICATION

Structure of the Standard Industrial Classification.—The basic classification system employed in the economic censuses is the Standard Industrial Classification (SIC). The SIC was developed for use in the classification of establishments by type of activity in which engaged. It covers the entire field of economic activities, subdivided as follows:

Industrial division		Major groups
A	Agriculture, forestry, and fisheries	01-09
B	Mining	10-14
C	Contract construction	15-17
D	Manufacturing	19-39
E	Transportation, communication, electric, gas, and sanitary services	40-49
F	Wholesale and retail trade	50-59
G	Finance, insurance, and real estate	60-67
H	Services	70-89
I	Government	91-94
J	Nonclassifiable establishments	99

Below the major group level, the SIC provides for 3-digit groups and finally for 4-digit industries. To illustrate—

Division B.—Mining

Major Group 10 . . . . . .Metal mining
Industry group 104 . . . . . .Gold and silver ores
Industry 1044 . . . . . .Silver ores

The SIC is the responsibility of an intragovernmental technical committee headed by the Office of Management and Budget (formerly Bureau of the Budget). The system is used by all Federal Government agencies engaged in the classification of establishments. To facilitate comparison with Federal statistics and the filing of reports, many State and local governments and business concerns organize their own records along SIC lines.

The first SIC manual was issued in 1939. For the mining sector, the nucleus of the manual was the census of mineral industries industry classifications developed over a period of many years.[2]

[2]For the mining industries, a revised manual was issued in 1945. For the 1954 census, the 1945 classification structure was employed, with minor modifications. Minor revisions of the SIC between 1958 and 1967 introduced some 4-digit industry changes but none of them crossed 3-digit group lines. Another extensive revision of the SIC, now under way, is scheduled to be effective with 1972.

Structure of the SIC Mining Division.—For the mining division, the 5 2-digit SIC Major Groups (10 to 14) are subdivided into 20 3-digit SIC Groups (101 to 149) and into 53 4-digit industries (1011 to 1499).

Most of the 53 mineral industries are defined in terms of a specific group of related products. In determining the boundaries of product-defined industries, it is essential that each industry comprise a group of establishments whose output of products defining the industry (primary products) accounts for a relatively high proportion of the total shipments of the industry as well as of the total shipments of these primary products by establishments in all manufacturing industries.

No general-purpose system of industrial classification can hope to satisfy all users of census data. Some business users will be interested primarily in data relating only to themselves and to their competitors in the production of a narrow range of products; others will wish data relating to all products, including complementary and substitutable products, competing in a particular market; others may wish data relating to the consumers of one or more types of materials. Some may be interested only in the data for plants producing a specific product; others only for those plants producing a "full line" of products. The large number of SIC industries provides the analyst with the "building blocks" for obtaining useful approximations, if not "clean" data, relevant to many of these problems. But, at best, a single general-purpose system of classification can only partially satisfy these diverse needs; a point is soon reached beyond which the adaptation of a system to serve one use somewhat better will reduce its ability, often disproportionately, to serve an alternative use.

Subindustries.—To increase the usefulness or improve the editing of the data, the Census Bureau has further classified the basic 4-digit SIC industries into "subindustries." This device is employed where there are wide disparities in the operating ratios of the establishments in the industry because the establishment is operated as a mine only, a mine with treatment plant, a treatment plant only, or the operated mine was underground, open pit, or a combination. This technique was used for all mining industries for editing purposes and many were regarded as significant enough to be used for publication: For example, the crude petroleum and natural gas industry (SIC 1311) is subdivided into a crude petroleum subindustry and a natural gas subindustry.

Definition of Mining.—The mineral industries include all establishments primarily engaged in mining. This term is used in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is also used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation and beneficiating needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or, if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

Mineral preparation plants are usually operated together with mines or quarries and frequently no separate records for them are maintained. All such preparation plants are included in the scope of the minerals census. In general, separately operated preparation plants, whether they process minerals for the account of the operator or on a custom or toll basis for others, are also included in the minerals census. Coal cleaning and sizing plants operated at mines or as separate establishments are also included. However, crushing, grinding, and other treatment of certain nonmetallic minerals at separately operated plants is included in the manufacturing industries.

Contract hauling (except out of open pits in conjunction with mining) is excluded from the mineral industries.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mix concrete plants) are not within the scope of this census. However, certain information on these operations has been obtained in the census of manufactures and is included in some of the summary and industry reports and in the State reports. Wherever such inclusion occurs, it is clearly specified.

All blast furnaces; metal smelters; metal and petroleum refineries; plants manufacturing cement, brick, tile, and pottery; and plants engaged in dressing or polishing stone are classified in the manufacturing industries. Separate reports were obtained and included in the minerals census for the few ore-dressing plants operated in conjunction with smelters and for the few natural gas liquids recovery plants operated as parts of chemical establishments.

Establishment Basis of Reporting.—The SIC is an establishment classification system, and the census of mineral industries is conducted on an establishment basis. That is, a company operating establishments at more than one location is required to submit a report for each location; also, a company engaged in distinctly different lines of activity at one location is required to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil or gas, or performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

Coverage of Establishments.—The 1967 Census of Mineral Industries excludes all single-unit establishments without paid employees and certain noncommercial operations. In the 1963, 1958, and 1954 censuses, establishments without paid employees were excluded if any of the following three items amounted to less than $500 for the entire year: (1) Value of products shipped and services performed for others; (2) expenses for wages, salaries, supplies, minerals received for preparation, fuel, purchased electric energy, contract work, and purchased machinery, and (3) capital expenditures for development and exploration of mineral

properties, new construction and major alterations, and new and used machinery and equipment.

For 1939 and 1929, in general, small establishments were excluded if each of three similar items amounted to less than $2,500, and for 1919, if value of products was less than $500 and expenditures for development work less than $5,000. For bituminous coal and lignite, an output criteria of 1,000 tons was used in these three censuses. For 1939, common sand and gravel operations were excluded if they produced less than 15,000 tons of sand and gravel and had expenses of less than $15,000. For 1929 common sand and gravel establishments producing less than 25,000 tons were excluded. This industry was not covered in censuses prior to 1929. Minimums for size of establishments included were not provided for earlier censuses.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway contractors and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and mills where all of the ore is transferred to a company-owned smelter.

Cumulative percentages for number of establishments, value added in mining, and capital expenditures by employment size classes are shown in table D.

In general, it is believed that the 1967 minerals census reports provided essentially complete coverage of production and development operations. About 95 percent of the total shipments of oil, and probably about 95 percent of the total shipments of gas were covered. This may be compared with an indicated 98 percent coverage in the 1963 census and an indicated 97 percent, respectively, in the 1958 minerals census. The special problems faced in covering this industry and details on the apparent coverage attained are discussed in the special text for Crude Petroleum and Natural Gas. Undercoverage of the crude petroleum and natural gas industry appears to have reduced the overall minerals census coverage of value of shipments by only about 2.8 percent. However, this undercoverage is somewhat more significant for certain States.

TABLE D. Cumulative Percentages by Employment Size Class For Number of Establishments, Value Added in Mining, and Capital Expenditures: 1967

Employee size class	Number of mining establishments	Value added by mining	Capital expenditures
All establishments	100.0	100.0	100.0
0 to 4 employees.....	51.4	5.2	9.8
5 to 9 employees.....	14.7	4.1	5.0
10 to 19 employees.....	14.0	7.3	7.6
20 to 49 employees.....	12.4	17.2	17.5
50 to 99 employees.....	3.8	12.1	11.6
100 to 249 employees....	2.5	21.3	20.0
250 to 499 employees....	0.8	18.9	15.3
500 to 999 employees....	0.3	8.3	8.1
1,000 to 2,499 employees 2,500 employees and over	0.1	5.6	5.1

In the 1967 census, for the first time, reports were not obtained directly from all such establishments. Approximately 10,000 small manufacturing firms were excused from filing reports; under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration (SSA) and the Internal Revenue Service (IRS) were made available to the Census Bureau for use in the 1967 economic censuses. Estimates for data other than payrolls and sales for these small establishments were constructed from historical industry ratios. The effect on industry aggregates is slight in most industries; for mining as a whole, they account for less than 1 percent of the value added.

As indicated above, report forms were not mailed to 10,000 very small establishments. These establishments were assigned the industry classifications to which they had been coded in the 1963 Census of Mineral Industries, or if they had begun in business after 1963, on the basis of brief descriptions of the general activity of the establishment as reported to the Social Security Administration. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between mining and nonmining activity, the code assigned to an establishment could differ from that which would have been assigned on the basis or more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

Primary and Secondary Products.—As applied in the economic censuses, the SIC coding system operates in such a way that the definitions become progressively narrower with successive additions of numerical digits. At one extreme are the 5 very broad 2-digit groups and at the other about 225 individual 7-digit products. In between are approximately 20 3-digit groups, 52 4-digit industries, and 100 5-digit product classes. The 7-digit products and 5-digit product classes are considered the primary products of the industry with the same first four digits as the product code. Accordingly, an establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. The industry code assigned to the establishment is derived from a summation of values for 7-digit product codes to their 4-digit industry and the selection of the largest such value as the establishment's industry classification. However as mentioned earlier, the industry classification of an establishment may be determined not only by the products it makes but also by the processes employed or materials used in making those products.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. Therefore, the general statistics (employment, payrolls, inventories, value added by mining, total value of shipments, capital expenditures, etc.) shown for an industry (tables 1 to 4 of the industry chapters) reflect not only the primary activities of the establishments in that industry but also their activities of a secondary nature. The product statistics in table 6 of the industry chapters represent the total output of specific products whether they are produced by establishments classified in the same industry as the product or not. For this reason, in relating the industry statistics in the industry chapters, especially the industry total value of shipments (tables 1 to 4), to the product statistics (table 6), the composition of the industry's output as shown in table 5 should be considered.

TABLE E. Value Added in Mining by Region, Divisions, and States: 1967

Region, division, and State	Amount (million dollars)	Percent	Region, division, and State	Amount (million dollars)	Percent
United States total.....	19,330.2	100.0	South Region--Continued		
Northeast Region.....	842.5	4.4	South Atlantic Division--Con.		
			Virginia.....	178.5	0.9
New England Division.....	51.4	0.3	West Virginia.....	744.4	3.9
Maine.....	3.0	0.0	North Carolina.....	46.7	0.2
New Hampshire.....	3.3	0.0	South Carolina.....	21.5	0.1
Vermont.....	11.7	0.0	Georgia.....	106.4	0.5
Massachusetts.....	17.0	0.1	Florida.....	202.3	1.0
Rhode Island.....	3.3	0.0			
Connecticut.....	13.1	0.1	East South Central Division.	859.9	4.4
			Kentucky.....	403.0	2.1
Middle Atlantic Division....	791.1	4.1	Tennessee.....	116.2	0.6
New York.....	137.5	0.7	Alabama.....	151.1	0.8
New Jersey.....	50.6	0.3	Mississippi.....	189.6	1.0
Pennsylvania.....	603.0	3.1			
			West South Central Division.	10,089.0	52.2
North Central Region.....	2,349.8	12.2	Arkansas.....	129.7	0.7
			Louisiana.....	3,983.3	20.6
East North Central Division.	1,212.2	6.3	Oklahoma.....	985.1	5.1
Ohio.....	281.4	1.5	Texas.....	4,990.9	25.8
Indiana.....	134.6	0.7			
Illinois.....	468.5	2.4	West Region.....	3,853.9	19.9
Michigan.....	289.9	1.5			
Wisconsin.....	37.8	0.2	Mountain.....	2,234.6	11.6
			Montana.....	129.2	0.7
West North Central Division.	1,137.6	5.9	Idaho.....	48.1	0.2
Minnesota.....	415.0	2.1	Wyoming.....	501.8	2.6
Iowa.....	43.6	0.2	Colorado.....	251.4	1.3
Missouri.....	103.6	0.5	New Mexico.....	718.8	3.7
North Dakota.....	76.9	0.4	Arizona.....	296.7	1.5
South Dakota.....	23.6	0.1	Utah.....	233.7	1.2
Nebraska.....	43.1	0.2	Nevada.....	54.9	0.3
Kansas.....	431.8	2.2			
			Pacific division.....	1,619.3	8.4
South Region.....	12,284.0	63.5	Washington.....	21.3	0.1
			Oregon.....	27.3	0.1
South Atlantic Division.....	1,335.1	6.9	California.....	1,342.2	6.9
Delaware.....			Alaska.....	223.5	1.2
Maryland.....	35.3	0.2	Hawaii.....	5.0	0.0
District of Columbia.....					

The Classification of Products and Materials.—In census industrial statistics, a commodity classification system based on the SIC is employed. The code numbers used in this system relate the commodity to the industry in which it is produced. For example, the 7-digit product code number 1021105 refers to crude copper ore mined from open pit operations. The first five digits of this code number, 10211, refer to the "product class" crude copper-bearing ores, and the first four digits, 1021, refer to the industry in which these products are made (the copper ores industry). The system is also applied to the coding of materials insofar as the first four digits are concerned; for example, the code number 102100 refers to copper ores, concentrates and precipitates used as a material at a manufacturing plant, and the first four digits of this code number, 1021, refer to the mining industry, where this product originates.

This SIC-based system is simpler than other systems for the coding of industrial products and materials used, since there is a direct numerical relationship between commodities and industries.

The SIC-based commodity classification is used in the Census Bureau's entire industrial statistics program, including monthly, quarterly, and annual surveys on manufacturing activity, and also in the census of wholesale trade. The Bureau also publishes data on imports and exports in terms of SIC-based categories as well as the traditional Schedule B and TSUSA systems.[3]

5. GEOGRAPHIC CLASSIFICATION

Census Divisions and Regions.—In order to present census data at a level intermediate between the U.S. total and those for the individual 50 States and the District of Columbia, the Census Bureau has used regional groupings for over a century. Since the 1909 census, the present nine geographic divisions have been used. Beginning with the 1939 census, the nine divisions were also classified into four geographic regions: Northeast, South, North Central, and West.

[3]Schedule B is the U.S. export classification while TSUSA is applied to imports.

Not only are these groupings convenient for the summary presentation of census data below the U.S. level, but they are also essential to presenting a maximum of geographic information where the individual State data cannot be shown without disclosing figures for individual companies. (See section 20, "Confidentiality".)

The relative importance of mining among the regions, divisions, and States is shown in table E.

Districts.—In 1963 for the first time, the census of mineral industries provided information by districts within States for the oil and gas extraction industries. This was done in that census for the States of Texas, New Mexico, and Louisiana. In 1967, information for the oil and gas extraction industries was also provided on a district basis for California. In 1963, offshore operations in the crude petroleum and natural gas industry (SIC 1311) were reported with the adjacent onshore district; in 1967, these offshore operations were reported separately.

II. METHODS

6. PLANNING AND PREPARATION

General.—The Census Bureau has an obligation to meet public needs for timely and reliable information while holding costs and the burden on respondents to a minimum. During the planning stages of the 1967 economic censuses, the advice of trade and professional associations, Federal and State government agencies, individual companies, labor unions, and research and educational organizations was solicited in an effort to reach both the users of data and the respondents who supply the basic figures. Simultaneously, studies of the problems encountered in the 1963 censuses were undertaken, and proposals to improve the methods of collection, processing, and tabulation were explored.

A Major Processing Innovation.—Beginning with the 1954 economic censuses, the basic mailing lists have been obtained from Internal Revenue Service (IRS) and Social Security Administration (SSA) records.[4] These records were also sampled to develop statistics for retail and service establishments with no employees. After the 1963 censuses, it was decided to investigate the feasibility of making greater use of the data in the IRS-SSA records. This effort led, in the 1967 censuses, to the exemption of over 2 million firms from the filing requirement, including 10,000 small mining firms. Instead, census-type statistics for this group were developed from IRS-SSA records. Well in advance of the data collection phase of the censuses, plans for using these records for small employers were developed in close cooperation with those agencies. Specific procedures for this use and for assuring confidential treatment of individual tax returns were set forth in Executive Order No. 10911, dated January 17, 1961, and Treasury Decision No. 6547 of the same date. The basic records used were business income tax returns (IRS forms 1040C, 1065, 1120, and 1120S) and payroll tax returns (IRS form 941). The information obtained from these reports was the name and address, payrolls, and gross business receipts. In addition, an SIC industrial activity code was assigned by use of the permanent SSA records which indicate the industry or kind of business of each employer. Other census statistics for these small firms were imputed, using industry average ratios to payrolls and sales.[5]

Planning the Content of Questionnaires.—As in previous censuses, the content of the 1967 questionnaires was developed in consultation with a large number of organizations and individuals, representing both the mineral concerns who supply the basic data and users of the resulting statistics. Those consulted included government agencies, individual firms, labor unions, the American Statistical Association, the American Economic Association, the American Marketing Association, and all mining associations covering specific industries.

A special effort was made to obtain the advice of individual mining companies and their trade associations as to the content of the sections of the report forms dealing with the output of specific products. Drafts of the proposed 1967 product sections were circulated among 50 trade associations and about 300 mining companies, both large and small. These inquiries followed the pattern of the 1963 census inquiries, with the introduction of new product detail reflecting suggestions received by the Census Bureau after the 1963 canvass. Small items (those valued at $2.5 million or less) were not retained in the list unless they were needed to simplify the classification of other products or were of strategic importance. The manufacturers and others consulted in this clearance procedure were requested to comment particularly as to whether the proposed detail was readily reportable from business records, and whether it represented the most appropriate set of items for the industry. A restriction was placed on proposals for additional detail; it was stipulated that the 1967 value of any new product category should exceed $7.5 million.

The thousands of comments and suggestions received in this clearance procedure were analyzed by the census staff. Finally, a detailed account of the review procedure and the decisions reached was forwarded to the Office of Statistical Standards, Bureau of the Budget, along with the Census Bureau's recommendations for the content of the product sections.

The final review of the content was performed by the Office of Statistical Standards with the assistance of the Advisory Council on Federal Reports. The latter organization is a group of business executives representing a cross section of industries and various professions within companies such as controllers, economists, and market research directors.

7. REPORTING FORMS

A representative selection of the reporting forms used in the 1967 census is reproduced in appendix E. The uses of each of them are discussed below.

General Forms.—This group of forms was used in the economic censuses generally, either as companywide reports or as reports for establishments whose classification was not known precisely in advance of mailing.

[4] The 1947 Census of Manufactures list was also obtained from the SSA.

[5] As discussed elsewhere in this introduction, the amount of imputation introduced by this procedure was only about 1 percent of the overall totals.

NC-X1A, Report of Company Organization.—This companywide report and its companion form **NC-X1B** were used in the precanvass of multiunit companies conducted in 1967. A more detailed account of their use is given in section 8, "The Mailing Lists."

NC-X3, General Schedule.—This questionnaire was designed to obtain information from small companies for which the industry code available in the SSA records was not precise enough to indicate which one of the standard census questionnaires should be mailed. The information provided on form NC-X3 was used to classify these companies by industry and tabulate their data in the appropriate census.[6]

NC-X6, Central Administrative Office or Auxiliary Establishment.—Many multiunit companies maintain separate establishments to provide centralized administrative, management, or other supporting services for other establishments of the same company, but not for the general public or other companies. These establishments were asked to complete form NC-X6. The form contained questions on approximate employment for such functions as centralized administration, research and development, warehousing, and other auxiliary activities, and on the cost of research and development work performed by these nonmanufacturing establishments.

NC-K1, Company Summary Report.—Each multiunit company with 250 employees or more received a form NC-K1, Company Summary Report, along with the appropriate questionnaires for its establishments. The NC-K1 requested consolidated company totals for key data items, such as receipts, new capital expenditures, inventories, and fixed assets. In addition, each company was asked to distribute the 1967 employment reported on its establishment questionnaires by its IRS-SSA employer identification numbers (EI numbers) and to compare these totals to the figures reported on its Treasury Form 941 tax returns. This comparison provided assurance that all domestic establishments of each large multiunit firm and its subsidiaries would be included in the censuses. Form NC-K1 served this operational purpose and also provided essential data for the enterprise statistics program described above in section 1, "The Economic Censuses."

NC-K13, Company Exploration Expenditures and Assets for Oil and Gas Field Operations.—This questionnaire was designed to obtain detailed information on company exploration expenditures and assets for oil and gas field operations on a **net working interest basis.** By contrast, figures reported on form MC-13A for oil and gas operations represent data reported on a **company operated basis** and include data for properties operated both for own account and for other but exclude data for properties owned by one company but operated by others. All multiunit companies with more than 20 employees in group 131 Crude Petroleum and Natural Gas, or with more than 50 employees in group 138, Oil and Gas Field Services, as well as a 5 to 10 percent sample (varying with the geographic area) of smaller multiunit companies were canvassed. In addition, all single-unit companies with more than 10 employees in major group 131, Crude Petroleum and Natural Gas, or with more than 15 employees in major group 138, Oil and Gas Field Services, as well as a 5 to 10 percent sample (varying with the geographic area) of smaller single-unit companies were covered on form MC-13A.

A more detailed description of the questionnaire and definition of terms used is given in the introduction to industry chapter 13A, Crude Petroleum and Natural Gas. The data tabulated from this questionnaire is also presented in table 8A and B of that release.

Census of Mineral Industries Forms and Instruction Manuals.—The questionnaire and instruction manual reproduced in the appendix, form MC-13A, is typical of the 10 forms used for operating mining establishments. Each of these forms was designed to be used for a specific group of industries. The inquiries on the 10 forms were identical except for the detailed questions on products shipped, materials used, and miscellaneous topics such as operations performed, equipment used, and delivery of products.

8. THE MAILING LISTS

General.—As discussed in section 6, "Planning and Preparation," the basic lists for 1967 were obtained from IRS-SSA records. Since the IRS-SSA lists consist essentially of the names and addresses of companies rather than establishments,[7] however, it was necessary to follow separate procedures for multiunit companies (those operating at more than one location).

The Precanvass.—Multiunit companies were required to file at least one establishment report[8] covering each location. In order to select the appropriate questionnaires, it was necessary to determine in advance the nature of operations at each location. Beginning early in 1967, therefore, a "Report of Company Organization" (form NC-X1A)[9] was obtained from firms known to be multiunits from previous census records. A shorter questionnaire, form NC-X1B,[9] was also sent to other firms which were regarded as possible multiunits, including all mining companies with 250 employees or more who were not on the NC-X1A list.

Both of these forms consisted essentially of a report on company affiliation and a list of the domestic establishments operated by the company. Before the forms were mailed, the company's establishments as identified in census records were prelisted. In the instructions for form NC-X1A, the respondents were asked to make any necessary corrections to this list. In addition, they were asked to supply descriptions of any new establishments not already listed, including their approximate size.

Approximately 700 large multiunit companies were segregated for special handling in the precanvass because problems involving overlap and duplication were anticipated. Many of these companies were active in manufacturing, retail, and wholesale trade as well as in mining. The instructions for the precanvass were reviewed with these firms in personal discussions with officials of their accounting departments, in order to make certain that the procedure was understood and the establishments properly described on form NC-X1A.

Initial Control File.—This file, consisting of about 7 million names and addresses of companies, was assembled from IRS-SSA records and other sources including the 1963 economic census records.

---

[6] The use of Form NC—X3 is also discussed in section 8, "The Mailing Lists."

[7] The SSA records for multiunit companies identify "reporting units," which in many instances correspond to census establishments. The differences are such, however, that it was found necessary to obtain up-to-date lists of establishments as described in this section. Also, the Census Bureau concept of a company differs from the IRS—SSA definition, since the Census company includes all establishments under common ownership or control; in the IRS—SSA records, subsidiary corporations are often treated as independent companies.

[8] If two or more distinct lines of activity were carried on at one location, separate reports were obtained under some circumstances. (For a complete discussion, see "Establishment Basis of Reporting" in section 4, above.)

[9] This form is reproduced in appendix E.

Single-Unit Companies.—The mailing lists for single-unit companies (those operating at only one location) were developed from the initial control file by removing out-of-scope companies (those whose activities were not to be surveyed in the economic censuses) and those identified as multiunits in the precanvass. A special survey of out-of-scope companies with more than 50 employees in selected industries was conducted to doublecheck their eligibility, and some names were added to the mailing list as a result.

The final step was to set aside the records of the small companies for which census-type statistics were to be developed from administrative records. The remaining records constituted the mailing lists for single-unit companies.

General Schedule.—While the lists assembled in these ways were generally adequate in providing sufficient industry information to determine the proper form for mailing, a number of the records did not have precise industry information associated with them. Form NC-X3, "General Schedule," which is reproduced in appendix E, was mailed to all such companies. Since it was assumed that these companies were quite small, only a few key figures were requested. On the basis of the information reported, these reports were coded and included in the basic tabulations. If form NC-X3 indicated that the company was actually large, it was later requested to file one or more of the appropriate standard questionnaires.

9. GEOGRAPHIC AREA CODING

Accurate and complete information on the physical location of each establishment is required in order to tabulate the census data by counties. As in previous censuses, the post office address and ZIP code of the establishment were not always accepted as defining the physical location, but respondents were required to describe the actual location in terms of street address, city, town or village, county, and State. For establishments located in rural territory, the name or number of the nearest highway was requested and the distance from the nearest town or other urban place.

In censuses prior to 1963, clerks assigned geographic code numbers to each establishment based on the description furnished by the respondent. This process was slow and required careful verification. Beginning with 1963, a computerized system was developed which assigned an area code number and a prefix symbol to the mailing address before the questionnaires were mailed. The prefix symbol indicated whether or not the mailing address was clearly acceptable as describing the physical location. If there was any question about its acceptability, the respondent's description was later carefully reviewed after the questionnaire was received. The assignment of tentative code numbers by the computer was based on extensive reference files containing nearly a million business names and addresses.

The geographic coding system used in the 1967 economic censuses was based on the 1963 system with some improvements and revisions. The major changes included expanding the address reference file, and use of the ZIP code as part of the procedure for matching addresses against the reference file.

10. DATA COLLECTION

General.—Although the greater use of administrative records in 1967 substantially reduced the number of companies canvassed directly, there remained nearly 2 million which were required to file. The assembly of several hundred different questionnaires into mailing packages, correctly labeled and coded, combined with the correct instruction booklets, was an extensive operation.

Instructions.—Several general instruction booklets were prepared to assist respondents in completing questionnaires for the 1967 economic censuses. In addition, separate detailed instruction manuals were printed for establishments in a few kinds of business and in certain mineral industries with peculiar reporting problems, as well as for manufacturing establishments reporting on the detailed standard forms.

Timing.—The bulk of the 1967 questionnaires was mailed in mid-February 1968 with a due date of April 30, about 2 months later than the corresponding due date for the 1963 censuses. Adoption of the April 30 due date, which had been urged by accountants, was based on the assumption that reports would be filed more promptly if their preparation followed that of Federal income tax returns, which were due April 15, and that the "lost" 2 months would be gained back. This turned out not to be the case. The collection phase was not completed until early November 1968, about 2 months behind the 1963 record.

Followup.—Companies which did not return their questionnaires by the due date had to be reminded that their returns were overdue. A reminder card was used for the first followup, and form letters used in the five subsequent mailings. Two basic letter formats were used, one for multiunit companies that had returned questionnaires for some but not all establishments, and the other for companies that had not responded at all.

The last followup letter was mailed in October 1968. Estimates based on data from administrative records were included in the census tabulations for the relatively small number which had not responded by the closeout date in November 1968. Thus, all companies and establishments included in the original mailing list (except those determined to be inactive during 1967) were represented in the final statistical results, either by actual returns or by proxy returns generated from administrative records. A special effort was made to obtain actual returns from all large firms, so that the volume of business represented by proxy returns was relatively very small.

11. DATA PROCESSING

General.—The editing,[10] coding, and tabulation of data for the 5 million establishments represented in the 1967 economic censuses was a complicated task requiring extensive advance planning and careful coordination among the Census Bureau's organization subdivisions. Automatic data processing and other advanced techniques were used in all phases to a considerable extent.

Facilities.—In the mail collection phase, the questionnaires were returned by respondents to the Census office at Jeffersonville, Ind., where most noncomputer (that is, clerical) processing operations were performed. The Jeffersonville functions consisted mainly of preliminary screening of questionnaires, carrying on routine correspondence with respondents, punching cards, and transmitting the punched data to Washington on a high speed transmission system. The Washington staff handled computer operations, and all operations in connection with the use of IRS and SSA records.

[10] In data processing, the term "editing" means the review of information collected on questionnaires or from other sources, with the objective of locating and correcting erroneous entries.

Preliminary Screening.—After checking in against control lists and assigning geographic codes, the questionnaires were reviewed clerically to see that they conformed to certain minimum requirements before further processing. In the case of multiunit companies, the sum of employment and payrolls reported on its establishment questionnaires was compared with the control totals reported on form NC-K1, "Company Summary Report." Questionnaires received from ostensibly single-unit firms were reviewed to ascertain whether they had become multiunits through merger or acquisition. All questionnaires were reviewed to see that the entries were legible and punchable, and that entries appeared for a number of key items. For mining establishment returns, the key items were payrolls and value of shipments. Questions arising in the screening operation were resolved by writing or telephoning the respondents. Complex problems involving multiunit companies were either handled by a special task force of experienced analysts in Jeffersonville or were referred to the Washington office.

Computer Editing.—All of the establishment records from the 1967 censuses of mineral industries and manufactures underwent computerized processes of screening and detailed testing of data. While most of these programs were newly devised in 1967, they were largely based on similar programs in use during the 1963 censuses. As in 1963, average values and tolerance limits for key operating ratios (for example, cost of materials per dollar of shipments, payroll per employee, production-worker wages per man-hour, etc.) played a fundamental role in the editing process. However, more extensive testing and more sophisticated routines for adjusting data which failed the tests were incorporated into the 1967 programs. The need for computer editing may be judged by the fact that more than half of all 4-digit SIC industries had one or more data cells changed by more than 5 percent as a result of application of these programs.

In sequence, the computer programs used included a Housekeeping and Screening Edit, a Coverage Control and Matching Edit, a Magnitude Edit, a General Statistics Edit, an Intercard Intercolumn Edit, a Product and Materials Edit, a Duplicate Removal Program, and various programs of referral and of aggregate testing. These programs are described in outline form below. Also included within this sequence were programs of geographic coding and of industry coding, which are described elsewhere in this introduction.

The Housekeeping and Screening Edit was designed to inspect each record for the presence of basic information such as identification numbers, geographic codes, and source codes (that is, ASM, census of manufactures, or census of minerals). This program also included some simple data adjustments, such as the replacement of a missing total by a corresponding sum of detail.

The Coverage Control and Matching Edits were a system of programs which checked the consistency of clerically assigned coverage codes with reported information on the ownership status of the establishment. For mining establishments, the program included matching with the 1963 census record file to identify corresponding prior-year records. In the 1967 Census of Mineral Industries, nearly 30,000 establishments were initially defined as being within the scope of mining. Of this number, approximately 2,000 were identified as having no activity during 1967. Of the remainder, more than 500 were rejected from the combined output of the Housekeeping and Screening Edit and from the Coverage Control and Matching Edit. This latter number was clerically reviewed, corrected where necessary, and recycled back into the computer.

The Magnitude Edit was designed to test the size of two key items, payrolls and value of shipments. For mining establishments, payrolls were compared to a historical employment-size code. Payroll figures passing the test were then used, in conjunction with cost of materials, in testing the value of shipments.

When failures in the magnitude tests were encountered, a fixed sequence of attempts to adjust the data was performed, which included dividing a reported figure by 1,000 (a common error was the reporting of values in dollars rather than in thousands of dollars as requested), or replacing a total by a sum of detail where these differed. If the corrective procedures of the Magnitude Edit were unsuccessful, the schedule was rejected for clerical inspection, correction where necessary, and recycling. This occurred for about 1,400 establishments.

The General Statistics Edit tested key operating ratios and adjusted the record or flagged it for later attention if it failed the test. Fifty-three such ratios were assigned for use in testing census of mineral industries records, and 31 1963-67 ratios of change were used in testing year-to-year changes. The tolerance limits and average values for these 84 ratios were based on the limits used for the corresponding tests in the 1963 census.

In the presence of ratio failures, the computer program was designed to determine the component of the ratio which was most likely to have caused the failure. This was done by a process of inspecting other ratios containing each of the suspect components, and by computing an overall weighted-reliability index for each. The component with the lowest reliability index was judged to be incorrect. The computer then attempted to adjust the questionable figure by a process of "rounding" (multiplying or dividing by successive powers of 10), substitution of a total by a sum of detail, or by imputation based on one of the several ratios in which the suspect component was contained. After each such attempted adjustment, the new figure was accepted if it resulted in an improved reliability index.

In addition to testing and correction of reported information, the General Statistics Edit was the vehicle for the imputation of data for the 10,000 companies designated as administrative-record cases, as well as data for companies which failed to report in the mail canvass. Imputation for all reasons, failure to report as well as administrative records, accounted overall for about 3 percent of the total value of shipments. Records were not rejected and removed from the computer tapes in the General Statistics Edit, but were flagged and printed out for review by an analyst whenever the computer made a large adjustment, found a large year-to-year change, or could not make an acceptable adjustment after test failure. Excluding administrative records, about 4,200 such cases were printed out for review and possible correction.

The Intercard Intercolumn Edit was designed to test specific relationships among products, materials, and special inquiries. The record was flagged for inspection if the test failed; some 3,000 records were printed out for review from this edit.

The Product and Materials Edits were performed after the data on products and materials had been extracted from the basic establishment records, and assembled in product (or material) sequence. The edits were designed to inspect the reported quantities of production and of consumption after the corresponding values were tested and found acceptable. Unit values, in terms of dollar value per unit of quantity, were computed and ranked from highest to lowest. The most extreme values were removed, and the truncated data were used in the formulation of parameters (average deviation, central value, and upper and lower tolerance limits) which were printed out for review by analysts. This routine differs from those in other edits in that the parameters for editing were developed from the data at hand rather than from historic data or predetermined reasonableness limits.

The Duplicate Removal program was designed to identify and eliminate duplicate establishment records from the census. The sources of duplication were many; imputed records which were followed by the late receipts of a report from the respondent were typical. The program resulted in the elimination of nearly 500 duplicate establishment records from the census file.

As in the 1963 census, this preliminary round of computer editing and professional correction was followed by a more detailed review of establishment records.

12. COVERAGE AND ACCURACY

Since the list of companies obtained from IRS and SSA records was considered to be complete, no field coverage check was conducted. The precanvass and other special procedures for multiunit companies described in section 8, "The Mailing Lists," and section 10, "Data Collection," were designed to secure complete lists of establishments, thereby amplifying the IRS-SSA company list. Control totals in terms of employment and payrolls of multiunit companies were also used to verify the completeness of establishment coverage. This procedure is discussed in section 11, "Data Processing."

13. COOPERATION WITH BUREAU OF MINES

The Bureau of Mines, U.S. Department of the Interior, cooperated with the Bureau of the Census in conducting the 1967 Census of Mineral Industries. The purpose of this cooperation was to assure comparable coverage and unduplicated results. Further, the Bureau of Mines played an important role in the development of the report forms and also cooperated in the development of a comparison of the basic commodity statistics tabulated by the two agencies. This data is shown in table 7 of this chapter.

III. COMMENTS ON STATISTICAL MEASURES AND TABLES

(Explanations and definitions of the various measures of activity for which statistics are compiled in the census of mineral industries are presented in appendix A. In the following sections, the limitations and other characteristics of some of these measures are discussed, the content of the statistical tables is described, and comparisons with other statistical series are presented.)

14. EMPLOYMENT AND PAYROLLS IN ADMINISTRATIVE OFFICES AND AUXILIARY ESTABLISHMENTS

Employment, payrolls, and establishment counts of central administrative offices and auxiliary establishments are included in all tables of the census of mineral industries. Tables 5 and 6 of this chapter show employment and payroll data separately by industries and States.

15. MATERIALS

In addition to the total cost of materials which every establishment was requested to report, quantity and cost information was collected for approximately 50 specific materials.[11] Materials were generally collected only in those industries in which they were important inputs. Detailed consumption information was collected in the standard materials inquiry, in the product inquiries (for items which were produced and consumed in the same plant), or in a few instances in special inquiries. The resulting statistics are presented mainly in tables 6 and 7 of the industry chapters.

In using the detailed data on materials consumed which appear in table 7 in the industry chapters, the following limitations should be noted:

(1) Attention should be paid to the code 976000 captioned "Undistributed supplies used, etc., and purchased machinery installed." The amounts appearing on these lines represent imputed totals for establishments whose statistics were developed by use of administrative records, and totals for other establishments which failed to report their consumption in specific terms. Thus, for most industries, the specific categories are understated. A judgment on the statistical significance of the understatement for each industry may be made on the basis of the relationship of the value shown for the "undistributed" (code 976000) line compared with the total of materials, components, parts, containers, and supplies for the industry.

(2) Establishments consuming less than a specified amount of material were not requested to report consumption of the material separately. For the majority of individual materials, the minimum amount was $5,000. The use of this cutoff is not believed to have had a significant effect on the totals.

(3) Materials were reported for the establishment as a whole and no attempt was made to ascertain how much of the material was used in each of various products. Thus, the industry totals represent consumption in secondary products as well as primary products of the industry represented. The extent of secondary production is measured by the specialization and coverage ratios shown in table 5 of the industry chapters.

16. VALUE OF SHIPMENTS BY MULTIUNIT COMPANIES

General.—Respondents were instructed to report net selling values, f.o.b. mine, well, or plant, after discounts and allowances and excluding freight charges and excise taxes. Multiunit companies were instructed to report for each establishment as if it were a separate economic unit and, in particular, to report interplant transfers at their full economic value, including not only the cost of production but also a reasonable proportion of company overhead and profits. Since there is no advertising or other selling cost involved, it would be expected that the value per unit of such transfers would be less than that for commercial sales. The plant receiving the transferred goods was instructed to include them in its cost of materials, valued as at the shipping point plus the cost of freight and other handling charges.

[11] See 1967 Censuses of Manufactures and Mineral Industries, *List of Materials Consumption Items,* MC67-6, for a more detailed account of the collection of data on materials consumed.

Individual Products.—In the 1967 census program, information was collected on the output of approximately 225 individual product items.[1 2] The term "product" as used in the census of mineral industries represents the finest level of detail for which output information was requested. Consequently, it is not necessarily synonymous with the term product as used in the marketing sense. In some cases it may be more detailed but more often it is more aggregative. Frequently, large aggregative values at the products level indicated that detailed production figures were available from the Bureau of Mines statistical program.

Typically, both quantity and value of shipments information was collected. However, if there was no meaningful physical quantity measure that could be reported by manufacturers, only value of shipments was collected. For products which are used to a large degree within the same establishment as materials or components in the fabrication of other products, total quantities produced and often the quantities consumed within the plant were collected. Typically, the information on production was also collected for products for which there are significant differences between total production and shipments in a given year.

Classes of Products.—For the purpose of summarizing the product information, the separate products were aggregated into classes of products which were, in turn, grouped into all primary products of each industry. The code structure used is a 7-digit number for the individual product, a 5-digit code for the class of product, and a 4-digit code for the total primary products in an industry (see section 4 for application of coding structure to the assignment of SIC codes for establishments).

The 200 product items in the 1967 census (including products from the Current Industrial Reports program) were grouped into approximately 100 separate product classes. Products were grouped into product classes to bring out significant differences in the broad types of products within a 4-digit industry.

17. VALUE ADDED IN MINING

This measure is computed by subtracting the cost of supplies, minerals received from other establishments for preparation, purchased fuels and electric energy, contract work, and purchased machinery installed from the value of shipments and receipts and capital expenditures. This statistic avoids the duplication in value of shipments which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure of value added not only in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments and receipts," used in this calculation, includes the shipments of all products of the mining establishment, together with receipts for work done for others. "Capital expenditures" includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The "costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

Value added in mining differs from "national income originating in mining," as presented in the national income estimates compiled by the Office of Business Economics, Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production. It excludes, in addition to cost of materials, such costs as depreciation charges, State and local taxes (other than corporate income taxes), allowance for bad debts, and purchases of services from other economic sectors, such as contract services classified in other sectors, services of engineering and management consultants, advertising, telephone and telegraph expenses, insurance, royalties, etc. It is, therefore, a more "net" concept for value added in mineral production than that used in the minerals census. On the other hand, the OBE figures do not include a measure of value added in development of mineral properties.

18. CAPITAL EXPENDITURES

Under this heading, mining establishments were instructed to report expenditures of the type chargeable to fixed assets accounts, for which depreciation reserves are normally maintained. Actual capital outlays during the year were requested, not the final value of equipment put in place or structures completed during the year. Included in such expenditure totals are expenditures for development and exploration of mineral properties. Excluded are cost of maintenance and repair charged to current operating expense, and cost of land and mineral rights.

The Census Bureau estimates of capital expenditures tend to be lower than those published in the joint Office of Business Economics-Securities and Exchange Commission survey. The major source of difference is to be found in the scope of the two series. Census data relate only to mining establishments, whereas the OBE-SEC series covers all establishments of mining companies—nonmining as well as mining. This factor is particularly important in the petroleum industry where company expenditures for developing new wells and new distribution facilities are ordinarily much larger than their capital expenditures at refineries. On the other hand, mining establishments of companies engaged primarily in nonmining activities are excluded from the OBE-SEC series but included in Census figures.

19. SUBJECT REPORTS

The subject reports include tables representing summaries of rearrangements of data appearing in the industry and area reports. The following reports are included in the subject series:

General Summary.—This report provides summary tabulations of data presented in greater detail in other census tables.

Water Use in Mining.—This report presents results of a survey of 1968 consumption of water in establishments consuming 20 million gallons or more annually. A more detailed description of data and definitions of terms employed is given in the introduction to the report.

Expenditures for Plant and Equipment.—These tables summarize the expenditures data published in table 3 of the industry reports. A description of the data is given in appendix A and in section 18, "Capital Expenditures."

Size of Establishments.—This report provides a summary of the general statistics by size of establishment which appear in table 4 of the industry reports.

Type of Operation.—These tables summarize the type-of-operation data published in tables 2A and 3B of the industry reports and table 3 of the State reports.

[1 2]See 1967 Census of Mineral Industries, MIC67-3, *Numerical List of Mineral Products*, and MIC67-4, *Alphabetic List of Mineral Products.*

20. CONFIDENTIALITY

The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because (1) it was considered preferable to show regional data for an industry, even at the cost of withholding data for another (usually the least significant) State in a region, rather than to show all publishable data for the individual States and group the disclosure States throughout the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) by giving preference to industry-group statistics over individual industries within each State, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

21. ABBREVIATIONS

The following abbreviations and symbols occur frequently in text, tables, and footnotes:

—	Zero
X	Not applicable
NA	Not available
n.e.c.	Not elsewhere classified
n.s.k.	Not specified by kind
lin.	Linear
equiv.	Equivalent
kw.-hrs.	Kilowatt-hours
D	Withheld to avoid disclosing figures for individual companies
SIC	Standard Industrial Classification
IRS	Internal Revenue Service
SSA	Social Security Administration
OBE	Office of Business Economics
SEC	Securities and Exchange Commission

Other abbreviations, such as lb., gal., yd., doz., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 pounds; where the figures are expressed in tons of 2,240 pounds, the unit of measure is specified as "long tons" or "gross tons."

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies etc., and purchased machinery installed	Value of net shipments and receipts[1]	Capital expenditures
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages				
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
Mineral industries only:											
1967	[2]28,579	5,682	567.3	4,186.8	432.6	892.0	2,888.2	19,330.2	10,576.2	(NA)	4,057.8
1963	[2]38,651	5,499	615.6	3,742.5	481.5	973.0	2,679.5	15,910.0	8,974.0	18,804.4	3,263.6
1958	36,392	6,045	733.9	3,749.0	565.4	1,080.5	2,623.0	13,385.2	7,521.0	16,373.1	2,804.1
1954	37,641	6,204	787.1	3,394.8	648.3	1,251.9	2,579.7	[3]11,558.7	[4]6,099.4	[3]14,226.2	2,726.2
Including operations in manufactures:											
All operations:											
1967	29,688	5,871	583.3	4,274.5	447.7	922.2	2,969.4	19,621.4	10,647.0	(NA)	[5]4,061.0
1963	40,532	5,743	637.0	3,843.0	501.7	1,013.8	2,773.2	16,231.3	9,066.3	19,210.5	[5]3,267.6
1958	37,966	6,295	754.9	3,835.6	585.2	1,119.5	2,702.5	13,685.4	7,585.1	16,729.0	[5]2,806.6
1954[5]	38,858	6,466	807.4	3,466.1	667.8	1,291.5	2,646.8	[3]11,752.3	[4]6,148.7	[3]14,465.3	[5]2,728.1
1939[6]	[7]25,023	(NA)	856.4	1,174.8	774.1	1,287.9	970.5	2,679.8	(NA)	3,432.8	(NA)
1919[8]	22,348	(NA)	1,065.5	1,461.3	989.8	(NA)	1,309.5	2,364.7	(NA)	3,138.4	(NA)
1909[8]	25,692	(NA)	1,005.8	637.1	960.5	(NA)	582.2	939.1	(NA)	1,215.0	(NA)
1902[9]	[7]52,088	(NA)	621.8	416.8	[10]582.0	(NA)	376.2	628.4	(NA)	772.6	(NA)
1889	(NA)	(NA)	542.6	227.1	(NA)	(NA)	(NA)	334.0	(NA)	426.3	(NA)
1880	(NA)	(NA)	296.0	94.8	(NA)	(NA)	(NA)	216.8	(NA)	252.0	(NA)
Excluding oil and gas extraction industries:											
1967	13,330	3,190	338.4	2,419.4	280.5	575.7	1,878.0	6,227.1	3,580.8	(NA)	[5]1,056.4
1963	19,290	3,026	365.5	2,098.3	309.8	616.5	1,680.1	5,211.5	3,021.1	6,787.1	[5]715.9
1958	19,444	3,603	442.0	2,134.9	371.2	679.2	1,691.2	4,652.9	2,785.7	6,071.9	[5]612.6
1954[5]	21,267	3,698	491.6	2,003.2	432.3	799.7	1,670.0	[11]4,078.6	2,250.4	[11]5,235.3	[5]499.9
1939[6]	[7]13,794	(NA)	670.2	856.4	625.1	1,022.8	750.1	1,437.4	(NA)	1,773.0	(NA)
1929[12]	10,996	(NA)	865.6	1,238.9	812.2	(NA)	1,099.9	1,955.8	(NA)	2,392.8	(NA)
1919[8]	12,377	(NA)	953.9	1,292.0	896.1	(NA)	1,174.1	1,779.7	(NA)	2,235.5	(NA)
1909[8]	17,494	(NA)	987.1	626.9	946.8	(NA)	578.0	848.2	(NA)	1,050.5	(NA)
1902[9]	[7]20,352	(NA)	594.3	395.5	[10]559.5	(NA)	359.8	569.3	(NA)	670.3	(NA)
1889	21,807	(NA)	513.4	216.8	(NA)	(NA)	(NA)	318.7	(NA)	388.3	(NA)
1880	7,395	(NA)	284.5	87.6	(NA)	(NA)	(NA)	199.1	(NA)	227.4	(NA)

Note: For more detailed historical statistics, see table 1 of the General Summary report of the 1954 Census of Mineral Industries, Vol. I. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products.

[2]In 1967, for the first time data for single unit establishments without paid employees were excluded from the Census. In 1963, there were 6,543 single unit establishments without paid employees in the United States. In the 1963 Census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[3]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[4]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of liquids contained in such gas. See also footnote 3.

[5]Excludes data for sand and gravel mining operations in manufacturing establishments.

[6]Except for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing stone at such operations was $7,913 thousand; this value has been included in the value of shipments and value added in mining.

[7]Represents number of mines and quarries, number of natural gas liquids plants, number of crude petroleum and natural gas establishments, and for mining services industries, number of operating companies.

[8]Excludes data for sand and gravel operations and for stone quarries operated as parts of cement and lime plants. In 1929, there were 957 such sand and gravel establishments, with products valued at $102,312 thousand, and 252 such stone quarries, with products valued at $31,032 thousand.

[9]Includes data for lime plants producing lime valued at $9,336 thousand. Excludes data for sand, gravel, common clay, and shale mining operations and for stone quarries at cement plants.

[10]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[11]Includes data for oil and gas extraction operations in Alaska. See also footnote 3.

[12]Excludes data for common clay and shale operations. In 1939, there were 609 such mines with products valued at $6,341 thousand.

TABLE 2. Detailed Statistics by Industry Group and Industry: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry group and industry	1967											
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Selected expenses			
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages		Supplies, purchases for resale, and purchased fuels and electric energy	Materials received for preparation	Contract work	Purchased machinery installed
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
	All mineral operations....	28,579	5,682	567.3	4,186.8	432.6	892.0	2,888.2	19,330.2	(NA)	(NA)	(NA)	(NA)
	Metal mining.....	1,155	318	70.9	552.4	55.4	113.9	396.1	1,556.6	(NA)	(NA)	(NA)	(NA)
1011	Iron ores.....	146	79	22.6	185.9	18.0	36.2	133.4	661.9	[1]221.2	91.9	37.2	49.9
1021	Copper ores.....	156	62	20.9	170.9	15.0	32.5	114.6	436.5	[1]252.2	([1])	27.9	81.5
1031	Lead and zinc ores.....	167	57	9.1	60.9	7.4	15.0	46.2	102.6	(NA)	(NA)	(NA)	(NA)
	Lead ores subindustry.....	104	22	4.2	30.6	3.3	6.7	21.9	36.9	[2]44.5	([2])	18.4	([2])
	Zinc ores subindustry.....	63	35	4.9	30.3	4.1	8.3	24.3	65.7	[2]27.0	([2])	2.4	([2])
104	Gold and silver ores.....	183	15	3.7	25.5	3.2	6.9	20.2	51.3	(NA)	(NA)	(NA)	(NA)
1042	Lode gold.....	77	6	2.4	16.2	2.0	4.6	12.9	33.3	8.9	-	.3	1.3
1043	Placer gold.....	48	2	.2	1.1	.2	.4	.9	2.1	2.7	([2])	(Z)	([2])
1044	Silver ores.....	58	7	1.2	8.2	1.0	1.9	6.4	16.0	3.9	-	.4	.8
1051	Bauxite and other aluminum ores	17	7	.6	4.1	.5	.8	2.9	22.5	[1]5.7	([1])	.6	.4
106	Ferroalloy ores, except vanadium	43	11	4.0	31.9	3.1	6.2	23.0	73.4	(NA)	(NA)	(NA)	(NA)
1062	Manganese ores.....	20	4	.2	.8	.1	.2	.6	1.8	[2]2.4	([2])	.1	([2])
1064	Tungsten ores.....	23	7	3.8	31.1	3.0	6.0	22.5	71.7	[2]40.6	([2])	4.4	([2])
1069	Ferroalloy ores, n.e.c.												
1081	Metal mining services.....	148	34	2.6	19.1	2.4	4.5	16.3	33.6	14.1	-	1.4	1.7
109	Miscellaneous metal ores.....	295	53	7.4	54.1	5.8	11.8	39.5	174.8	(NA)	(NA)	(NA)	(NA)
1092	Mercury ores.....	62	9	.7	4.7	.6	1.2	3.8	8.3	(D)	(D)	(D)	(D)
1093	Titanium ores.....	7	6	.9	6.4	.7	1.4	4.9	17.3	5.4	-	.7	1.4
1094	Uranium-radium-vanadium ores..	188	34	5.4	40.5	4.1	8.5	28.9	142.1	38.5	35.6	26.8	15.7
1099	Metallic ores, n.e.c.	38	4	.3	2.4	.3	.6	2.0	7.1	(D)	(D)	(D)	(D)
11	Anthracite mining.....	403	69	7.2	41.1	6.3	11.6	35.0	82.1	(NA)	(NA)	(NA)	(NA)
1111	Anthracite.....	371	58	6.4	36.6	5.5	10.3	30.9	74.7	12.3	43.7	6.1	2.2
1112	Anthracite mining services.....	32	11	.8	4.5	.7	1.3	4.1	7.4	2.0	-	.2	.8
12	Bituminous coal and lignite mining.....	4,081	1,055	124.4	926.2	108.9	212.4	776.8	2,009.2	(NA)	(NA)	93.4	308.5
1211	Bituminous coal.....	3,921	1,030	122.5	912.5	107.2	208.8	764.7	1,974.6	578.1	303.2	92.7	303.2
1212	Lignite.....	45	7	.5	3.3	.4	.8	2.6	12.9	(D)	(D)	.1	3.2
1213	Bituminous and lignite mining services, n.e.c.	115	18	1.4	10.4	1.3	2.8	9.5	21.7	8.1	-	.6	2.1
13	Oil and gas extraction.....	16,358	2,681	244.9	1,855.1	167.2	346.5	1,091.4	13,394.3	3,511.3	2,742.7	1,645.6	766.7
131	Crude petroleum and natural gas	8,796	1,034	126.4	1,049.1	66.2	130.0	440.3	10,965.0	1,298.5	-	1,519.8	490.0
	Crude petroleum subindustry...	7,278	856	106.8	901.7	54.9	107.7	365.6	8,943.0	1,083.7	-	1,286.3	401.8
	Natural gas subindustry.....	1,518	178	19.6	147.4	11.2	22.3	74.7	2,022.1	214.7	-	233.6	88.2
1321	Natural gas liquids.....	684	216	12.4	99.5	10.5	21.0	82.1	905.0	123.0	2,742.7	47.2	104.0
138	Oil and gas field services.....	6,878	1,431	106.1	706.6	90.6	195.5	569.0	1,524.1	2,089.8	-	78.6	172.7
1381	Drilling oil and gas wells....	2,347	581	42.9	294.7	38.7	81.4	255.2	627.4	268.0	-	51.6	87.1
1382	Oil and gas exploration services.....	636	99	8.4	53.1	6.6	15.9	39.4	126.4	24.3	-	4.8	16.4
1389	Oil and gas field services, n.e.c.	3,895	751	54.8	358.7	45.3	98.2	274.4	770.4	1,797.5	-	22.1	69.2
14	Nonmetallic minerals, except fuels.....	6,582	1,559	119.9	812.0	94.8	207.6	588.9	2,288.0	(NA)	(NA)	(NA)	(NA)
1411	Dimension stone.....	244	21	1.9	9.3	1.8	3.4	7.6	18.1	(NA)	(NA)	.4	.7
	Dimension limestone subindustry.....	46	6	.5	2.7	.5	.9	2.2	5.4	1.3	([2])	.2	([2])
	Dimension granite subindustry	50	7	.6	3.6	.6	1.2	2.9	6.8	[2]2.0	([2])	.1	([2])
	Dimension stone, n.e.c., subindustry.....	148	8	.8	3.0	.7	1.3	2.6	5.9	[2]1.3	([2])	.2	([2])

See footnotes at end of table.

TABLE 2. Detailed Statistics by Industry Group and Industry: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry group and industry	1967—Continued					1963				
				Capital expenditures			All employees				
		Value of shipments and receipts (million dollars)	Value of net shipments and receipts (million dollars)	Total (million dollars)	Development and exploration of mineral property (million dollars)	New and used plant, equipment, and machinery (million dollars)	Number (1,000)	Payroll (million dollars)	Value added in mining (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
	All mineral operations	25,848.7	(NA)	4,057.8	1,501.1	2,556.7	615.6	3,742.5	15,910.0	21,620.5	3,263.6
	Metal mining	2,296.2	(NA)	339.8	55.1	284.7	77.2	515.2	1,418.2	2,128.2	230.9
1011	Iron ores	953.4	(D)	108.8	8.1	100.7	23.1	161.6	549.3	762.2	96.6
1021	Copper ores	675.9	561.5	122.1	20.4	101.8	26.5	187.3	417.1	670.2	87.1
1031	Lead and zinc ores	151.1	135.8	43.7	11.3	32.5	9.4	49.3	84.4	136.0	11.9
	Lead ores subindustry	65.5	53.4	34.2	7.7	26.6	4.3	21.9	34.0	50.7	6.1
	Zinc ores subindustry	85.6	82.4	9.5	3.6	5.9	5.1	27.4	50.3	85.2	5.8
104	Gold and silver ores	63.3	63.3	4.4	2.1	2.3	4.1	24.8	49.0	60.2	7.2
1042	Lode gold	42.3	42.3	1.5	.3	1.2	2.3	13.9	21.3	26.6	2.9
1043	Placer gold	2.5	2.5	.3	.1	.2	.4	2.1	5.8	7.5	1.0
1044	Silver ores	18.5	18.5	2.6	1.7	0.9	1.4	8.8	21.9	26.1	3.3
1051	Bauxite and other aluminum ores	28.8	(D)	.4	(Z)	.4	.6	3.4	17.5	21.5	.3
106	Ferroalloy ores, except vanadium	108.3		12.7	1.0	11.6	3.0	20.3	66.4	90.7	5.8
1062	Manganese ores	4.0	(D)	.2	-	.2	.2	1.1	2.3	7.2	.4
1064	Tungsten ores	104.2	(D)	12.5	1.0	11.5	2.8	19.2	64.1	83.5	5.4
1069	Ferroalloy ores, n.e.c.										
1081	Metal mining services	48.3	48.3	2.3	(Z)	2.3	2.2	13.9	24.7	32.4	3.0
109	Miscellaneous metal ores	267.1	(D)	45.4	12.2	33.2	8.2	54.4	209.7	355.1	19.0
1092	Mercury ores	10.6	10.6	(D)	(D)	(D)	.3	1.8	2.5	3.7	.3
1093	Titanium ores	23.5	23.5	1.3	(Z)	1.3	1.0	6.4	15.0	22.0	2.2
1094	Uranium-radium-vanadium ores	218.2	182.6	40.5	11.9	28.6	6.7	45.2	190.6	326.4	15.9
1099	Metallic ores, n.e.c.	14.8	(D)	(D)	(D)	(D)	.2	1.0	1.6	3.0	.6
11	Anthracite mining	155.9	(NA)	6.4	.4	6.0	11.8	58.8	120.5	236.5	15.1
1111	Anthracite	146.0	102.0	5.0	.4	4.6	10.7	53.0	110.5	221.0	12.7
1112	Anthracite mining services	9.9	9.7	1.4	(Z)	1.4	1.1	5.8	10.0	15.5	2.5
12	Bituminous coal and lignite mining	2,944.7	(NA)	334.3	20.3	314.0	133.9	762.3	1,606.7	2,396.4	218.3
1211	Bituminous coal	2,897.5	2,580.7	329.5	20.3	309.2	132.0	752.5	1,578.1	2,358.3	210.8
1212	Lignite	17.9	17.9	1.5	(Z)	1.5	.5	2.8	11.8	14.1	4.6
1213	Bituminous and lignite services, n.e.c.	29.3	29.2	3.3	(Z)	3.3	1.3	7.0	16.8	24.0	2.9
13	Oil and gas extraction	17,455.9	(NA)	3,004.6	1,401.3	1,603.3	271.5	1,744.7	11,019.8	14,512.5	2,551.7
1311	Crude petroleum and natural gas	11,731.7	(NA)	2,541.6	1,372.4	1,169.3	145.2	1,016.4	9,016.4	9,893.8	2,209.9
	Crude petroleum subindustry	9,648.7	(NA)	2,066.1	1,114.0	952.1	125.8	892.6	7,813.0	8,600.1	1,906.5
	Natural gas subindustry	2,082.9	(NA)	475.6	258.4	217.2	19.4	123.8	1,203.4	1,293.7	303.4
1321	Natural gas liquids	3,707.6	1,102.6	214.4	-	214.4	13.9	96.6	762.1	2,800.8	113.9
138	Oil and gas field services	2,016.7	1,985.3	248.4	28.9	219.6	112.3	631.7	1,241.3	1,817.9	227.9
1381	Drilling oil and gas wells	893.7	892.7	140.4	26.5	113.9	55.4	318.2	653.3	979.3	148.0
1382	Oil and gas exploration services	152.0	147.6	19.9	.3	19.6	8.7	47.8	90.0	119.8	11.7
1389	Oil and gas field services, n.e.c.	971.0	945.0	88.2	2.1	86.1	48.2	265.7	498.0	718.8	68.2
14	Nonmetallic minerals, except fuels	2,996.0	(NA)	372.7	23.9	348.4	121.2	661.5	1,744.8	2,346.9	247.5
1411	Dimension stone	22.2	22.1	1.1	(Z)	1.1	2.2	7.8	14.8	19.7	1.1
	Dimension limestone subindustry	6.5	6.5	.4	(Z)	.4	.3	1.3	2.9	3.5	.3
	Dimension granite subindustry	8.7	8.7	.2	(Z)	.2	.8	3.6	6.5	9.4	.4
	Dimension stone, n.e.c., subindustry	7.0	7.0	.4	(Z)	.4	1.0	3.0	5.4	6.8	.4

See footnotes at end of table.

TABLE 2. Detailed Statistics by Industry Group and Industry: 1967 and 1963 —Continued

(See appendix, Explanation of Terms)

Code	Industry group and industry	1967											
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Selected expenses			
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages		Supplies, purchases for resale, and purchased fuels and electric energy	Materials received for preparation	Contract work	Purchased machinery installed
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)
14	Nonmetallic minerals, except fuels--Continued												
142	Crushed and broken stone.....	2,033	714	42.9	280.8	35.8	80.7	215.6	704.7	235.1	13.1	33.3	86.9
1422	Crushed and broken limestone..	1,484	510	30.8	197.5	25.8	58.5	153.6	492.2	160.6	9.2	22.4	60.9
1423	Crushed and broken granite....	149	80	4.5	27.1	3.9	8.9	22.0	80.1	30.9	.7	2.9	12.6
1429	Crushed and broken stone, n.e.c.	400	124	7.7	56.2	6.1	13.3	40.1	132.4	43.6	3.2	8.0	13.4
144	Sand and gravel.....	3,232	485	34.6	229.1	28.0	59.9	173.9	547.5	(NA)	(NA)	(NA)	(NA)
1442	Construction sand and gravel..	3,069	422	30.5	202.0	24.8	53.1	154.6	481.7	141.6	9.7	23.2	53.9
1446	Industrial sand.....	163	63	4.1	27.2	3.2	6.8	19.1	65.9	20.7	1.2	3.3	8.1
	Glass sand subindustry.....	41	27	1.7	11.3	1.3	2.9	7.9	27.1	[2]12.1	(2)	1.0	(2)
	Molding sand subindustry....	71	18	1.1	7.6	.9	1.9	5.5	17.4	[2]9.5	(2)	2.1	(2)
	Industrial sand, n.e.c., subindustry.....	51	18	1.3	8.2	1.0	2.1	5.8	21.4	[2]8.4	(2)	.2	(2)
145	Clay and related minerals.....	356	121	9.4	57.7	7.5	16.7	42.9	154.6	(NA)	(NA)	(NA)	(NA)
1452	Bentonite.....	32	16	.9	5.4	.6	1.4	3.4	13.2	6.9	-	1.3	.6
1453	Fire clay.....	99	12	.8	5.1	.7	1.4	4.2	18.5	4.3	-	1.1	.8
1454	Fuller's earth.....	16	11	1.1	5.1	1.0	2.0	4.1	15.6	5.6	-	.9	4.5
1455	Kaolin and ball clay.....	63	34	3.7	24.1	2.9	6.4	16.7	65.1	21.7	.2	2.4	10.1
1456	Feldspar.....	17	9	.5	2.6	.4	.9	2.0	6.6	[1]2.5	(1)	.6	.3
1459	Clay and related minerals, n.e.c.	129	39	2.3	15.4	2.0	4.4	12.5	35.7	[1]18.3	(1)	1.0	4.6
147	Chemical and fertilizer minerals	233	130	23.8	188.2	15.9	34.5	113.5	740.7	(NA)	(NA)	(NA)	(NA)
1472	Barite.....	30	10	.9	4.7	.8	1.6	3.9	15.3	[1]3.0	(1)	1.5	1.1
1473	Fluorspar.....	32	9	.7	4.7	.6	1.3	3.7	11.0	5.4	3.4	0.4	0.5
1474	Potash, soda, and borate minerals.....	33	28	7.9	67.8	5.1	10.7	41.4	187.7	[1]52.8	(1)	1.6	16.6
1475	Phosphate rock.....	69	41	8.1	59.6	5.4	12.0	35.3	199.3	49.3	52.1	10.0	33.6
1476	Rock salt.....	26	18	2.6	19.3	1.9	4.4	13.0	70.9	[1]11.5	(1)	1.3	4.9
1477	Sulfur.....	31	21	3.2	30.5	1.8	4.0	15.1	253.2	[1]25.6	(1)	12.4	10.3
1479	Chemical and fertilizer mining, n.e.c.	12	3	.3	1.6	.2	.4	1.1	3.4	[1]2.2	(1)	.2	.5
1481	Nonmetallic minerals services...	106	10	.8	5.9	.8	1.5	4.9	11.2	3.7	-	.4	1.8
149	Miscellaneous nonmetallic minerals.....	378	78	6.5	41.0	5.0	10.9	30.5	111.2	(NA)	(NA)	(NA)	(NA)
1492	Gypsum.....	33	5	.4	2.3	.3	.7	1.9	7.4	[1]1.9	(1)	.2	.4
1493	Mica.....	20	5	.3	1.8	.3	.5	1.2	5.3	[1]1.5	(1)	.1	.3
1494	Native asphalt and bitumens...	12	7	.5	3.0	.4	.8	2.2	5.8	2.5	(1)	.9	.3
1495	Pumice and pumicite.....	29	2	.2	1.0	.1	.2	.7	2.0	[1].6	(1)	.3	.1
1496	Talc, soapstone, and pyrophyllite.....	53	18	1.2	7.4	1.1	2.3	5.8	16.9	[1]4.8	(1)	.1	1.2
1497	Natural abrasives, except sand	20	5	.3	2.2	.2	.5	1.4	4.3	[2]2.8	(2)	(Z)	(2)
1498	Peat.....	76	4	.5	2.3	.4	1.0	2.0	6.7	[2]2.1	(2)	.2	(2)
1499	Nonmetallic minerals, n.e.c...	135	32	2.9	20.9	2.3	4.9	15.3	62.8	[1]20.6	(1)	5.5	4.7

Standard Notes: - Represents zero. (NA) Not available. (X) Not applicable. (Z) Less than one half of the unit of measure specified.

[1]Data for minerals received for treatment are included with supplies, purchases for resales, and purchased fuels and electric energy.

[2]Data for minerals received for treatment and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

TABLE 2. Detailed Statistics by Industry Group and Industry: 1967 and 1963 —Continued

(See appendix, Explanation of Terms)

Code	Industry group and industry	1967--Continued					1963				
				Capital expenditures			All employees				
		Value of shipments and receipts (million dollars)	Value of net shipments and receipts (million dollars)	Total (million dollars)	Development and exploration of mineral property (million dollars)	New and used plant, equipment, and machinery (million dollars)	Number (1,000)	Payroll (million dollars)	Value added in mining (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
14	Nonmetallic minerals, except fuels--Continued										
142	Crushed and broken stone	963.6	852.4	109.5	2.8	106.6	43.2	229.1	581.7	794.9	82.7
1422	Crushed and broken limestone	666.6	558.6	78.7	2.4	76.3	31.1	160.6	408.5	542.9	59.5
1423	Crushed and broken granite	114.2	114.0	13.0	(Z)	12.9	4.0	19.8	61.7	89.7	7.2
1429	Crushed and broken stone, n.e.c.	182.7	179.8	17.8	.4	17.4	8.1	48.7	111.5	162.2	16.0
144	Sand and gravel	715.1	(NA)	94.4	3.6	90.6	40.1	212.2	513.7	678.1	75.7
1442	Construction sand and gravel	625.4	615.7	84.7	3.6	81.0	36.4	190.4	459.3	607.5	69.0
1446	Industrial sand	89.6	88.4	9.6	(Z)	9.5	3.7	21.2	54.4	70.5	3.2
	Glass sand subindustry	36.4	36.4	3.9	(Z)	3.8	1.6	9.1	22.6	29.1	4.0
	Molding sand subindustry	25.5	24.8	3.5	(Z)	3.5	.9	5.0	12.8	16.6	.9
	Industrial sand, n.e.c., subindustry	27.8	27.3	2.2	(Z)	2.2	1.2	7.1	19.0	24.8	1.9
145	Clay and related minerals	218.2	(NA)	24.0	.7	23.3	8.4	42.2	113.5	161.5	14.7
1452	Bentonite	21.2	(D)	.9	(Z)	.9	.8	4.1	11.4	18.1	1.4
1453	Fire clay	23.1	22.2	1.5	.3	1.2	1.0	4.6	12.6	17.1	2.2
1454	Fuller's earth	22.5	(D)	4.1	.2	3.8	.8	3.1	9.1	13.0	1.2
1455	Kaolin and ball clay	87.9	86.5	11.6	.2	11.4	3.3	17.7	49.8	66.1	5.2
1456	Feldspar	9.4	8.6	.5	(Z)	.5	.5	2.0	6.1	8.5	1.7
1459	Clay and related minerals, n.e.c.	54.1	51.1	5.5	.1	5.4	2.0	10.7	24.5	38.9	3.0
147	Chemical and fertilizer minerals	909.6	846.5	131.3	16.0	115.4	21.0	137.1	433.3	576.9	60.0
1472	Barite	19.6	19.6	1.2	(Z)	1.2	1.4	6.8	11.1	16.7	1.1
1473	Fluorspar	19.6	(D)	1.1	.1	.9	.8	4.0	8.9	15.8	.3
1474	Potash, soda, and borate minerals	215.7	(D)	43.0	10.9	32.1	7.1	51.9	156.2	192.1	26.8
1475	Phosphate rock	296.6	244.5	47.7	3.2	44.5	5.6	32.0	94.9	161.7	22.2
1476	Rock salt	81.3	(D)	7.3	.1	7.2	2.4	16.0	49.5	59.3	7.4
1477	Sulfur	271.2	271.2	30.3	1.7	28.7	2.6	20.6	100.3	113.1	1.1
1479	Chemical and fertilizer mining, n.e.c.	5.6	(D)	.7	-	.7	1.1	6.0	12.4	18.3	1.1
1481	Nonmetallic minerals services	15.3	15.3	1.9	(Z)	1.9	.9	4.6	9.3	13.2	1.4
149	Miscellaneous nonmetallic minerals	152.1	151.5	10.5	.8	9.7	5.5	28.5	78.2	102.6	12.0
1492	Gypsum	9.3	9.3	.6	.1	.5	.5	2.4	7.8	10.2	1.3
1493	Mica	6.9	(D)	.5	(Z)	.4	.4	1.6	3.9	5.6	.9
1494	Native asphalt and bitumens	8.7	8.7	.8	.3	.5	.4	2.2	6.3	8.5	1.1
1495	Pumice and pumicite	2.8	2.8	.2	(Z)	.2	.2	1.1	4.2	5.4	.7
1496	Talc, soapstone, and pyrophyllite	21.3	(D)	1.7	.2	1.5	1.3	6.6	13.7	17.5	1.1
1497	Natural abrasives, except sand	5.7	5.7	1.4	(Z)	1.4	.3	1.6	4.1	5.0	.5
1498	Peat	8.5	8.5	.5	(Z)	.5	.5	1.8	5.6	7.4	.9
1499	Nonmetallic minerals, n.e.c.	88.9	(D)	4.8	.2	4.6	1.9	11.2	32.6	43.0	5.5

TABLE 3. Selected Statistics by Geographic Areas: 1967 and 1963

(See appendix, Explanation of Terms)

Geographic area	1967								
	Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed
	Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages		
	(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)
United States, total	28,579	5,682	567.3	4,186.8	432.6	892.0	2,888.2	19,330.2	10,576.2
Northeast Region	2,944	578	58.3	428.8	46.6	94.7	310.0	842.5	536.3
New England Division	298	54	4.0	28.3	2.9	6.3	18.3	51.4	24.8
Maine	34	4	.3	1.3	.2	.5	1.1	3.0	2.6
New Hampshire	26	3	.2	1.4	.2	.4	1.1	3.3	1.6
Vermont	36	12	.9	5.1	.7	1.6	4.1	11.7	3.9
Massachusetts	111	19	1.3	11.0	.9	1.9	5.9	17.0	9.7
Rhode Island	22	7	.3	2.1	.3	.6	1.7	3.3	2.1
Connecticut	69	9	.9	7.4	.6	1.3	4.4	13.1	4.9
Middle Atlantic Division	2,646	524	54.3	400.5	43.7	88.4	291.7	791.1	511.5
New York	467	87	9.1	81.7	5.9	12.6	43.0	137.5	53.7
New Jersey	138	45	2.9	22.1	2.1	4.6	13.6	50.6	25.9
Pennsylvania	2,041	392	42.3	296.7	35.7	71.2	235.1	603.0	431.9
North Central Region	5,812	993	100.5	733.8	79.7	166.3	540.4	2,349.8	1,371.3
East North Central Division	3,349	608	59.6	455.3	47.6	100.5	339.2	1,212.2	679.7
Ohio	1,195	196	17.8	136.8	13.9	29.2	92.8	281.4	172.2
Indiana	497	88	6.5	46.7	5.2	10.9	35.5	134.6	52.0
Illinois	962	214	20.7	167.0	16.6	35.9	126.9	468.5	188.9
Michigan	459	85	12.2	88.0	10.1	20.5	71.3	289.9	246.6
Wisconsin	236	25	2.4	16.8	1.8	4.0	12.7	37.8	20.0
West North Central Division	2,463	385	40.9	278.5	32.1	65.8	201.2	1,137.6	691.6
Minnesota	226	65	12.9	98.7	10.1	19.8	70.7	415.0	251.5
Iowa	240	42	2.8	18.2	2.4	5.7	14.2	43.6	24.8
Missouri	381	76	8.9	60.0	6.0	12.3	38.3	103.6	82.1
North Dakota	166	24	1.9	12.6	1.6	3.3	10.1	76.9	45.5
South Dakota	81	7	2.2	13.9	1.9	4.4	11.3	23.6	10.9
Nebraska	254	24	1.6	9.9	1.4	2.8	7.9	43.1	19.8
Kansas	1,115	147	10.6	65.2	8.7	17.5	48.7	431.8	257.0
South Region	15,072	3,173	300.1	2,152.6	226.0	464.4	1,439.5	12,284.0	6,461.4
South Atlantic Division	3,259	762	80.2	542.2	69.5	139.9	447.9	1,335.1	903.8
Delaware, Maryland, District of Columbia	153	33	2.2	14.7	1.8	4.0	10.2	35.3	21.9
Virginia	737	170	13.0	76.5	11.6	21.8	63.9	178.5	114.4
West Virginia	1,780	341	45.6	337.7	40.4	78.2	288.6	744.4	482.8
North Carolina	161	59	3.5	18.8	2.9	6.7	14.4	46.7	29.5
South Carolina	59	26	1.6	8.6	1.4	3.1	6.6	21.5	15.3
Georgia	159	66	6.2	35.1	5.2	11.8	27.6	106.4	60.0
Florida	210	67	8.1	50.8	6.2	14.2	36.0	202.3	179.9
East South Central Division	2,220	510	43.7	277.8	38.5	75.6	228.5	859.9	518.1
Kentucky	1,267	259	24.6	157.1	22.0	42.1	132.6	403.0	307.2
Tennessee	352	99	6.9	39.1	6.0	12.4	31.6	116.2	54.1
Alabama	294	83	7.9	51.6	7.1	13.8	44.0	151.1	66.1
Mississippi	307	69	4.3	30.0	3.4	7.3	20.4	189.6	90.7
West South Central Division	9,593	1,901	176.2	1,332.6	118.0	248.9	763.1	10,089.0	5,039.5
Arkansas	306	56	4.1	24.7	3.4	7.0	19.2	129.7	67.7
Louisiana	1,382	429	46.5	371.5	34.2	75.8	245.3	3,983.3	2,188.6
Oklahoma	1,782	304	30.1	219.6	17.4	35.1	102.2	985.1	426.6
Texas	6,123	1,112	95.5	716.8	63.0	131.0	396.4	4,990.9	2,356.6
West Region	4,751	938	108.4	871.6	80.3	166.6	598.3	3,853.9	2,207.2
Mountain Division	2,830	536	68.0	521.3	52.5	108.9	375.5	2,234.6	1,323.3
Montana	311	38	5.5	39.4	4.5	9.1	31.0	129.2	110.6
Idaho	97	23	3.1	23.3	2.6	5.2	18.6	48.1	27.1
Wyoming	447	99	8.7	64.8	6.8	14.3	47.2	501.8	214.5
Colorado	648	95	12.0	94.6	8.4	16.4	57.2	251.4	134.5
New Mexico	690	156	16.6	120.7	13.0	26.6	90.2	718.8	477.5
Arizona	198	38	10.7	90.0	8.1	18.7	64.7	296.7	133.6
Utah	308	66	8.5	65.7	6.7	13.4	48.3	233.7	178.1
Nevada	131	21	2.9	22.8	2.4	5.2	18.3	54.9	47.4
Pacific Division	1,921	402	40.4	350.3	27.8	57.7	222.8	1,619.3	883.9
Washington	185	17	1.6	12.6	1.2	2.3	8.8	21.3	15.0
Oregon	160	18	1.4	9.5	1.2	2.4	8.2	27.3	13.5
California	1,438	329	35.0	298.1	23.4	48.1	182.2	1,342.2	687.7
Alaska	126	35	2.2	28.5	1.8	4.5	22.3	223.5	165.4
Hawaii	12	3	.2	1.6	.2	.4	1.3	5.0	2.3

(Z) Less than $50 thousand or 50 employees.

TABLE 3. Selected Statistics by Geographic Areas: 1967 and 1963 —Continued

(See appendix, Explanation of Terms)

Geographic area	1967—Continued				1963				
	Value of shipments and receipts (million dollars)	Capital expenditures			All employees		Value added in mining (million dollars)	Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)
		Total (million dollars)	Development and exploration of mineral property (million dollars)	New and used plant, equipment, and machinery (million dollars)	Number (1,000)	Payroll (million dollars)			
United States, total	25,848.7	4,057.8	1,501.1	2,556.7	615.6	3,742.5	15,910.0	21,620.5	3,263.6
Northeast Region	1,262.7	116.0	15.1	100.9	66.5	387.1	782.6	1,185.6	116.2
New England Division	67.7	8.5	1.4	7.1	3.9	22.9	42.4	56.2	7.1
Maine	2.8	2.8	1.0	1.8	.2	.8	1.5	2.0	.3
New Hampshire	4.2	.8	(Z)	.7	.2	1.2	2.2	3.1	.5
Vermont	14.8	.9	.1	.8	.8	4.1	8.8	11.1	1.0
Massachusetts	24.5	2.2	.2	2.0	1.7	10.1	16.9	22.4	3.1
Rhode Island	4.8	.6	(Z)	.5	.2	1.1	2.0	2.7	.3
Connecticut	16.8	1.2	(Z)	1.2	.8	5.6	11.0	14.9	1.9
Middle Atlantic Division	1,195.0	107.5	13.7	93.8	62.6	364.6	740.2	1,128.9	109.1
New York	175.5	15.7	1.8	13.9	9.9	71.2	129.7	166.6	15.3
New Jersey	70.1	6.4	.1	6.3	3.8	23.8	55.2	72.4	8.2
Pennsylvania	949.4	85.4	11.8	73.6	48.9	269.6	555.3	889.9	85.6
North Central Region	3,309.0	412.0	62.4	350.1	106.3	623.5	2,111.7	2,964.5	380.4
East North Central Division	1,691.6	200.3	30.0	170.3	62.2	373.6	1,042.5	1,487.7	203.7
Ohio	401.3	52.3	7.6	44.8	17.6	104.2	223.9	318.8	45.8
Indiana	166.8	19.7	1.7	17.9	7.3	41.8	107.5	143.3	19.4
Illinois	589.5	68.0	10.3	57.7	22.0	135.4	450.5	654.5	57.0
Michigan	483.7	52.8	10.1	42.7	12.2	75.2	223.1	316.4	76.1
Wisconsin	50.3	7.5	.3	7.1	3.1	17.0	37.5	54.7	5.4
West North Central Division	1,617.4	211.7	32.4	179.3	44.1	249.9	1,069.2	1,476.5	176.7
Minnesota	584.4	82.1	1.6	80.5	13.2	91.0	367.7	502.1	25.2
Iowa	61.4	7.0	.3	6.7	2.7	13.5	33.2	44.9	5.5
Missouri	144.2	41.6	6.3	35.2	7.7	38.2	66.3	95.6	22.5
North Dakota	102.8	19.6	5.2	14.4	1.7	9.8	73.7	93.1	17.8
South Dakota	32.8	1.6	.2	1.5	2.6	13.7	25.6	37.9	3.0
Nebraska	55.6	7.2	1.1	6.1	2.1	11.2	69.3	87.8	10.7
Kansas	636.2	52.6	17.6	35.0	14.1	72.5	433.4	615.1	92.0
South Region	16,255.5	2,489.4	962.5	1,526.9	327.4	1,945.0	9,560.4	12,875.8	2,063.3
South Atlantic Division	1,987.6	251.2	25.6	225.6	82.2	434.3	1,011.6	1,574.8	136.2
Delaware, Maryland, District of Columbia	52.0	5.2	.1	5.1	2.4	12.8	35.3	47.4	4.9
Virginia	262.6	30.4	3.0	27.4	15.6	66.9	144.8	224.1	15.0
West Virginia	1,090.5	136.7	17.1	119.6	47.6	277.0	596.1	910.6	80.0
North Carolina	67.4	8.8	.5	8.3	2.6	10.9	31.6	44.4	4.5
South Carolina	32.6	4.1	.1	4.0	1.7	6.8	19.0	26.6	2.6
Georgia	145.8	20.6	.5	20.1	5.7	27.1	75.8	106.7	9.5
Florida	336.7	45.4	4.4	41.0	6.6	32.8	109.0	215.0	19.7
East South Central Division	1,205.8	172.1	37.5	134.6	48.9	239.6	747.0	1,103.6	120.6
Kentucky	627.3	82.9	9.3	73.6	27.8	131.6	337.4	541.8	52.7
Tennessee	151.3	19.0	2.1	16.8	6.9	32.6	90.1	126.7	13.2
Alabama	196.3	20.9	1.8	19.0	8.9	45.8	119.0	168.7	15.6
Mississippi	230.9	49.4	24.3	25.1	5.3	29.8	200.5	266.4	39.1
West South Central Division	13,062.1	2,066.1	899.4	1,166.7	196.3	1,271.1	7,801.8	10,197.4	1,806.5
Arkansas	165.0	32.4	9.5	22.8	4.7	23.6	110.2	155.5	17.3
Louisiana	5,146.6	1,025.1	478.3	546.8	45.7	313.1	2,640.0	3,416.8	736.7
Oklahoma	1,223.1	188.6	91.9	96.7	32.9	199.9	805.9	1,039.5	205.0
Texas	6,527.4	820.0	319.7	500.4	113.0	734.5	4,245.7	5,585.6	847.5
West Region	5,021.5	1,040.4	461.1	579.4	115.3	787.0	3,455.2	4,594.5	704.5
Mountain Division	3,076.8	481.5	181.6	299.9	77.0	507.9	2,101.9	2,895.2	435.7
Montana	199.0	40.9	12.6	28.3	7.6	47.1	111.0	189.5	66.7
Idaho	63.8	11.4	1.7	9.7	3.3	19.1	40.1	51.9	5.1
Wyoming	625.9	90.4	38.1	52.2	8.7	60.9	453.1	560.6	76.3
Colorado	339.1	46.9	20.2	26.7	11.2	72.7	253.3	335.8	35.6
New Mexico	1,034.4	161.9	66.9	95.0	17.6	114.6	649.6	876.9	150.4
Arizona	369.6	60.8	15.0	45.8	15.2	107.4	287.4	385.9	42.6
Utah	357.5	54.3	24.3	30.0	10.7	68.8	267.8	423.8	53.3
Nevada	87.5	14.9	2.8	12.1	2.7	17.3	39.6	70.8	5.7
Pacific Division	1,944.7	558.9	279.5	279.5	38.3	279.1	1,353.3	1,699.3	268.8
Washington	28.7	7.6	3.3	4.3	1.9	11.9	24.6	34.8	4.1
Oregon	35.1	5.6	3.0	2.7	1.9	11.2	17.7	25.7	4.4
California	1,687.8	342.6	163.0	179.6	32.9	242.2	1,253.6	1,569.9	225.9
Alaska	187.6	201.3	110.2	91.1	1.3	12.1	52.6	62.4	33.9
Hawaii	5.5	1.8	-	1.8	.3	1.7	4.9	6.5	.5

TABLE 4. Industry Shipments and Receipts and Net Shipments of Primary Products: 1967

(In millions of dollars)

Ind. code	Industry or subindustry	Shipments and receipts of establishments classified in the industry					Net shipments of primary products or services		
		Total	Primary products	Secondary products	Receipts for secondary services	Products purchased and resold without further processing	Total (produced or performed in all industries)	Produced or performed in this industry	Produced or performed in other industries
10	METAL MINING								
1011	Iron ores	953.4	(D)	(D)	1.8	(D)	863.2	(D)	(D)
1021	Copper ores	675.9	648.5	(D)	(D)	(D)	540.3	534.1	6.2
1031	Lead and zinc ores	151.2	149.8	(D)	(D)	-	134.5	127.4	7.1
	Lead ores subindustry	65.5	53.1	(D)	(D)	-	54.5	41.0	13.5
	Zinc ores subindustry	85.6	70.2	(D)	(D)	-	80.0	67.0	13.0
104	Gold and silver ores:								
1042	Lode gold	42.3	41.4	(D)	-	(D)	41.5	41.4	0.1
1043	Placer gold	2.5	(D)	(D)	-	-	2.5	2.5	(Z)
1044	Silver ores	18.5	17.9	(D)	-	(D)	20.9	17.9	3.0
1051	Bauxite and other aluminum ores	28.8	(D)	(D)	-	(D)	24.7	(D)	(D)
106	Ferroalloy ores, except vanadium:								
1062	Manganese ores	4.0	(D)	(D)	-	-	(D)	(D)	-
1064	Tungsten ores	104.3	(D)	(D)	-	-	100.7	(D)	(D)
1069	Ferroalloy ores, n.e.c.								
1081	Metal mining services	48.3	45.7	(D)	(D)	(Z)	45.7	45.7	(Z)
109	Miscellaneous metal ores:								
1092	Mercury ores	10.6	10.5	(D)	(D)	(D)	[1]10.9	(D)	(D)
1093	Titanium ores	23.5	17.2	6.3	-	-	[2]18.7	[2]17.2	[2]1.5
1094	Uranium-radium-vanadium ores	218.2	216.4	(D)	1.3	(D)	[3]180.8	[3]180.8	-
1099	Metallic ores, n.e.c.	14.8	(D)	(D)	(D)	(D)	(D)	(D)	(D)
11	ANTHRACITE MINING								
1111	Anthracite	146.0	143.5	(D)	(D)	0.5	[4]100.0	[4]99.8	[4]0.2
1112	Anthracite mining services	9.9	9.7	(D)	-	(D)	9.7	9.7	-
12	BITUMINOUS COAL AND LIGNITE MINING								
1211	Bituminous coal	2,897.5	2,878.3	1.8	2.9	14.4	[4]2,576.8	[4]2,576.0	[4]0.8
1212	Lignite	17.9	17.7	(D)	(D)	-	[1]17.7	[1]17.7	-
1213	Bituminous coal and lignite mining services, n.e.c.	29.3	29.2	-	-	0.1	30.1	29.2	0.9
13	OIL AND GAS EXTRACTION								
1311	Crude petroleum and natural gas	11,731.7	11,687.9	-	41.6	3.0	11,740.2	11,687.1	53.1
	Crude petroleum subindustry	9,648.7	8,098.7	1,508.7	38.4	2.9	8,841.7	8,098.7	743.0
	Natural gas subindustry	2,082.9	1,381.1	698.4	3.3	0.1	2,898.5	1,381.1	1,517.4
1321	Natural gas liquids	3,707.6	3,683.2	(D)	-	(D)	1,122.2	1,078.2	44.0
138	Oil and gas field services:								
1381	Drilling oil and gas wells	893.7	835.2	45.2	12.3	1.0	873.1	835.2	37.9
1382	Oil and gas exploration services	152.0	145.4	(D)	(D)	4.4	146.4	145.4	1.0
1389	Oil and gas field services, n.e.c.	971.0	925.7	6.3	13.0	26.0	958.8	925.7	33.1
14	NONMETALLIC MINERALS, EXCEPT FUELS								
1411	Dimension stone	22.1	20.0	1.6	0.1	0.4	28.2	20.0	8.2
	Dimension limestone subindustry	6.5	5.3	1.0	(D)	(D)	9.3	5.3	4.0
	Dimension granite subindustry	8.7	8.5	(D)	(D)	(D)	9.8	8.5	1.3
	Dimension stone, n.e.c., subindustry	7.0	6.2	(D)	(D)	0.2	9.2	6.2	2.9
142	Crushed and broken stone:								
1422	Crushed and broken limestone	666.6	608.6	40.3	6.4	11.3	[5]647.3	600.7	[5]46.6
1423	Crushed and broken granite	114.2	106.0	7.3	(D)	(D)	[5]110.3	105.7	[5]4.6
1429	Crushed and broken stone, n.e.c.	182.7	165.6	12.4	2.5	2.1	[5]188.4	162.7	[5]25.7
1441	Sand and gravel	625.4	581.0	25.7	9.3	9.4	[5]659.2	570.9	[5]88.3

See footnotes at end of table.

TABLE 4. Industry Shipments and Receipts and Net Shipments of Primary Products: 1967 —Continued

(In millions of dollars)

Ind. code	Industry or subindustry	Shipments and receipts of establishments classified in the industry					Net shipments of primary products or services		
		Total	Primary products	Secondary products	Receipts for secondary services	Products purchased and resold without further processing	Total (produced or performed in all industries)	Produced or performed in this industry	Produced or performed in other industries
14	NONMETALLIC MINERALS, EXCEPT FUELS--Continued								
1446	Industrial sand, n.e.c.:								
	Glass sand subindustry	36.4	25.4	(D)	(D)	(D)	34.0	25.3	8.7
	Molding sand subindustry	25.5	21.4	(D)	(D)	(D)	27.8	20.8	7.0
	Industrial sand, n.e.c., subindustry	27.8	20.4	7.2	(D)	(D)	29.0	19.8	9.2
145	Clay and related minerals:								
1452	Bentonite	21.2	19.7	(D)	(D)	(D)	(D)	[6]20.1	(D)
1453	Fire clay	23.1	22.2	(D)	-	(D)	[7]31.7	22.2	[7]9.5
1454	Fuller's earth	22.5	19.7	(D)	(D)	(D)	(D)	(D)	-
1455	Kaolin and ball clay	87.9	86.6	0.6	-	0.7	[8]9.7	(D)	(D)
1456	Feldspar	9.4	(D)	(D)	-	-	9.0	8.6	0.4
1459	Clay and related minerals, n.e.c.	54.1	52.3	1.3	(D)	(D)	[8]80.4	51.1	[8]29.3
147	Chemical and fertilizer minerals:								
1472	Barite	19.6	(D)	(D)	(D)	(D)	(D)	19.5	(D)
1473	Fluorspar	19.6	(D)	(D)	(D)	(D)	16.6	16.6	-
1474	Potash, soda, and borate minerals	215.7	211.0	(D)	-	(D)	206.3	206.3	-
1475	Phosphate rock	296.6	293.9	(D)	(D)	(D)	240.8	240.8	-
1476	Rock salt	81.3	(D)	(D)	-	(D)	79.8	(D)	(D)
1477	Sulfur	271.2	271.2	-	-	-	271.2	271.2	-
1479	Chemical and fertilizer mining, n.e.c.	5.6	(D)	(D)	-	(D)	13.3	4.9	8.4
1481	Nonmetallic mineral services	15.3	(D)	(D)	(D)	(Z)	16.2	(D)	(D)
149	Miscellaneous nonmetallic minerals:								
1492	Gypsum	9.3	(D)	(D)	-	-	[9]34.3	(D)	(D)
1493	Mica	6.7	(D)	-	-	(D)	7.0	6.3	[10]0.7
1494	Native asphalt and bitumens	8.7	(D)	(D)	-	(D)	8.7	8.7	-
1495	Pumice and pumicite	2.8	(D)	(D)	-	(D)	3.3	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	21.3	20.4	(D)	(D)	(D)	20.3	(D)	(D)
1497	Natural abrasives, except sand	5.7	(D)	(D)	-	(D)	5.7	(D)	(D)
1498	Peat	8.5	(D)	(D)	(D)	(D)	8.4	8.4	-
1499	Nonmetallic minerals, n.e.c.	88.9	85.7	(D)	-	(D)	87.8	87.4	0.5

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. n.e.c. Not elsewhere classified.

[1]Represents gross shipments.

[2]Represents gross shipments of titanium concentrates.

[3]Represents gross shipments less minerals received for preparation.

[4]Represents raw coal shipped for use without preparation plus prepared coal.

[5]Includes the estimated value of minerals produced and used in the same manufacturing establishment in making manufactured products.

[6]Includes bentonite produced in other mineral industries, amounting to approximately 2 percent of total shown.

[7]Includes the estimated value of fire clay produced and used in the same establishment in the manufacture of cement and clay products.

[8]Includes the estimated value of common clay and shale produced and used in the same establishment in the manufacture of cement and clay products.

[9]Includes the estimated value of gypsum products produced and used in the same establishment in the manufacture of calcined gypsum products. Excludes crushed, ground, screened, and dried gypsum produced in establishments which did not mine gypsum.

[10]Represents gross shipments from other industries, principally material processed in the manufacturing industries.

TABLE 5. Employment at Central Administrative Offices and Related Facilities by Industry Groups and Industries: 1967 and 1963

Code	Industry group and industry	1967		1963	
		Number of employees (1,000)	Payroll (million dollars)	Number of employees (1,000)	Payroll (million dollars)
	All mineral industries	51.0	529.3	46.3	416.2
10	Metal mining	4.2	49.9	4.8	47.8
1011	Iron ores	1.3	18.5	2.1	23.3
1021	Copper ores	2.0	22.1	2.0	18.0
103	Lead and zinc ores	0.3	3.9	0.3	2.5
109	Miscellaneous metal ores	0.3	3.2	0.2	1.6
11	Anthracite mining	0.3	2.0	0.5	2.2
1111	Anthracite	0.3	2.0	0.5	2.2
12	Bituminous coal and lignite mining	5.2	46.3	4.0	31.8
13	Oil and gas extraction	34.9	364.3	31.1	284.4
131	Crude petroleum and natural gas	31.0	328.4	29.0	266.8
1312	Crude petroleum subindustry	28.2	305.3	26.6	248.8
1313	Natural gas subindustry	2.7	23.1	2.4	18.0
1321	Natural gas liquids	0.4	4.2	(NA)	(NA)
138	Oil and gas field services	3.5	31.7	(NA)	(NA)
1381	Drilling oil and gas wells	0.6	6.2	0.4	3.6
1382	Oil and gas field exploration services	0.7	5.6	0.2	1.6
1389	Oil and gas field services, n.e.c.	2.2	19.9	(NA)	(NA)
14	Nonmetallic minerals, except fuels	6.5	66.8	5.9	50.0
142	Crushed and broken stone	1.2	12.9	1.4	12.8
1422	Crushed and broken limestone	0.7	6.6	0.7	6.9
1423	Crushed and broken granite	(Z)	0.6	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	0.5	5.7	(NA)	(NA)
144	Sand and gravel	1.1	10.5	1.1	8.8
1442	Construction sand and gravel	0.9	8.1	(NA)	(NA)
	Industrial sand: molding sand subindustry	0.1	0.8	(NA)	(NA)
145	Clay and related minerals	0.4	4.0	0.2	1.5
147	Chemical and fertilizer minerals	3.4	36.3	3.0	25.3
1474	Potash, soda, and borate minerals	0.9	10.1	(NA)	(NA)

Note: Figures in this table represent central administrative offices at different locations from the establishments managed or served, or at the same location as one of these establishments but not operated as an integral part of it. All figures in this table have been included in the reports for the industries with which they are associated.

Detail may not add to the totals due to independent rounding.
(NA) Not available. (Z) Less than 50 employees. n.e.c. Not elsewhere classified.

TABLE 6. Employment at Central Administrative Offices and Related Facilities by Divisions and Selected States: 1967 and 1963

Division and States	1967		1963	
	Number of employees (1,000)	Payroll (million dollars)	Number of employees (1,000)	Payroll (million dollars)
United States, total	51.0	529.3	46.3	416.2
New England Division	0.4	4.8	0.2	2.5
Middle Atlantic Division	4.8	53.9	4.7	41.3
New York	2.2	28.7	2.1	21.2
New Jersey	0.3	2.9	0.3	2.6
Pennsylvania	2.3	22.3	2.2	17.6
East North Central Division	4.5	52.2	3.7	34.5
Ohio	2.0	25.3	1.4	15.0
Indiana	0.4	3.9	0.5	4.1
Illinois	1.7	18.7	1.4	10.9
Michigan	0.5	4.0	(NA)	(NA)
Wisconsin	(Z)	0.4	(NA)	(NA)
West North Central Division	2.9	24.5	2.9	24.2
Minnesota	0.6	5.8	1.4	14.3
Kansas	0.3	2.4	(D)	(D)
South Atlantic Division	1.9	17.8	1.6	12.6
District of Columbia	(Z)	0.2	(NA)	(NA)
Virginia	0.4	3.4	0.3	2.1
West Virginia	0.9	7.7	0.8	6.5
Georgia	0.1	0.6	(Z)	0.4
Florida	0.2	2.3	0.2	1.6
East South Central Division	0.6	5.9	0.4	2.7
Kentucky	0.3	2.7	0.1	0.9
Tennessee	0.1	1.0	0.1	(D)
West South Central Division	28.3	290.5	26.7	242.8
Oklahoma	7.1	69.5	6.4	57.2
Texas	16.2	168.1	17.7	160.4
Mountain Division	2.7	28.8	2.9	25.1
Wyoming	0.2	2.0	0.4	(D)
Colorado	1.2	14.0	1.0	9.3
New Mexico	0.2	1.7	0.4	(D)
Arizona	0.2	2.3	(NA)	(NA)
Utah	0.4	4.2	0.3	2.9
Pacific Division	4.8	50.9	3.2	30.5
California	4.6	49.0	3.1	30.1

Note: Figures in this table represent central administrative offices at different locations from the establishments managed or served, or at the same location as one of these establishments but not operated as an integral part of it. All figures in this table have been included in the reports for the States where they are located.

Detail may not add to the total due to independent rounding.
(D) Withheld to avoid disclosing figures of individual companies. (NA) Not available. (Z) Less than 50 employees.

TABLE 7. 1967 Bureau of the Census and Bureau of Mines Statistics Compared

Product	Unit of measure	Bureau of the Census statistics			Bureau of Mines statistics		
		Production (quantity)	Shipments, including interplant transfers: Quantity	Shipments, including interplant transfers: Value (million dollars)	Production[1] (quantity)	Shipments[1]: Quantity	Shipments[1]: Value (million dollars)
METAL ORES AND CONCENTRATES							
Iron ore, except manganiferous iron ore:							
Crude iron ore	Million long tons	178.8	(D)	(D)	183.4	(NA)	(NA)
Net production and shipments	do	[2]85.9	[3]82.7	[3]863.2	84.2	82,415.0	817.5
Manganiferous iron ore (net production and shipments)	do	([2])	(D)	(D)	(NA)	[4]3,237	(NA)
Copper, lead, zinc, gold, and silver ores (production and net shipments)	Million short tons	[5]148.3	(NA)	(NA)	150.6	(NA)	(NA)
Metal content of copper, lead, zinc, gold, and silver-bearing materials							
Copper[6]	Million pounds	1,908.9	(NA)	(NA)	1,908.1	(NA)	[7]229.4
Lead[6]	do	616.7	(NA)	(NA)	658.6	(NA)	[7]85.7
Zinc[6]	do	1,121.4	(NA)	(NA)	1,085.8	(NA)	[7]151.6
Gold[6]	1,000 fine ounces	1,570.0	(NA)	(NA)	1,539.0	(NA)	[7]55.4
Silver[6]	do	(D)	(NA)	(NA)	32,345.0	(NA)	[7]50.1
Copper ores:							
Crude ore mined in the Copper Ores Industry (production and net shipments)	Production--million short tons of ore or concentrates.	127.5	Copper	4.3	[8]127.1	[8]Copper	(NA)
Copper concentrates		3.0	1,591.4	459.8	(NA)	1,608.1	(NA)
Copper precipitates (metal content)	Shipments--million pounds of metal contained.	(NA)	301.5	76.6	(NA)	255.0	(NA)
Lead and zinc ores:							
Crude ore mined in the Lead and Zinc Ores Industry (production and net shipments)		17.1	Lead- 572.0	6.5	[9]19.4	Lead- [9]612.1	(NA)
Lead concentrates		0.4	Zinc-	50.8	(NA)	Zinc-	(NA)
Zinc concentrates		0.9	1,129.2	77.2	(NA)	[9]1,033.9	(NA)
Lode gold:							
Crude ore mined in the Lode Gold Industry (production and net shipments)	Production--million short tons of ores or concentrates.	3.2			[10]3.2	Gold- [11]76.3	(NA)
Gold concentrates	Shipment--1,000 fine ounces of metal contained.	(NA)	Gold- 1,156.0	41.0	(NA)	[12]1,010.6	(NA)
Mill bullion		(NA)			(NA)		(NA)
Placer gold	1,000 fine ounces	63.8	63.8	2.2	65.0	(NA)	[7]2.3
Silver ores:							
Crude ore mined in the Silver Ores Industry (production and net shipments)	Production--1,000 short tons of ore or concentrates.	700.0	Silver-		[13]904.0	Silver-	(NA)
	Shipments--1,000 fine ounces of metal contained.		14,916.0	20.0		[14]12,303.0	
Silver concentrates and mill bullion		(NA)			(NA)		(NA)
Bauxite:							
Crude bauxite	Million long tons	2.1	2.1	23.1	2,051	(NA)	(NA)
Net shipments	do	(X)	[15]2.0	[15]21.5	(X)	2.1	22.6
Manganese ores	do	(NA)	(NA)	(NA)	(NA)	[16].1	(NA)
Mercury ores:							
Crude mercury ores	1,000 short tons	373.8	(D)	(D)	[17]440.0	(NA)	(NA)
Mercury metal	1,000 flasks (76 pounds)	23.0	22.7	10.9	23.8	(NA)	[18]11.6
Titanium ores:							
Crude titanium ores	Million short tons	28.0	(X)	(X)	(NA)	(NA)	(NA)
Titanium concentrates	do	.9	.9	18.7	[19].9	[19].9	[19]18.5
Uranium-radium-vanadium ores:							
Crude uranium-vanadium ores	do	5.5	1.7	29.2	(NA)	[20]5.2	[20]80.5
Uranium-vanadium concentrates	do	[21](Z)	[21](Z)	[21]187.5	[22](Z)	(NA)	(NA)
Zirconium concentrates	Short tons	(NA)	(NA)		(NA)	(NA)	
Antimony, beryllium, germanium, bastnaesite, monazite, and thorium concentrates and platinum group metals		(X)	(X)	16.3	(X)	(X)	15.0

See footnotes at end of table.

TABLE 7. 1967 Bureau of the Census and Bureau of Mines Statistics Compared —Continued

Product	Unit of measure	Bureau of the Census statistics			Bureau of Mines statistics		
		Production (quantity)	Shipments, including interplant transfers: Quantity	Shipments, including interplant transfers: Value (million dollars)	Production[1] (quantity)	Shipments[1]: Quantity	Shipments[1]: Value (million dollars)
COAL							
Anthracite (net production and shipments)	Million short tons	11.8	[23]12.4	[23]100.0	12.3	12.1	95.9
Bituminous coal (net production and shipments)	Million short tons	(NA)	[23]545.1	[23]2,576.8	548.1	(NA)	[24]2,546.8
Lignite (net production and shipments	...do	(NA)	[23]6.8	[23]17.7	4.5	(X)	[24]8.6
OIL AND GAS							
Crude petroleum, including field condensate and drips	Million barrels	[25]3,064.8	3,057.4	8,841.7	3,215.7	(NA)	[24]9,375.9
Natural gas	Billion cu. ft	9,308.9	17,185.1	2,898.5	20,251.8	[26]18,171.3	[26]2,898.7
Natural gas liquids (net production and net shipments)	1,000 barrels	498,000.0	497,100.0	1,122,200.0	514,456.0	489,720.0	[24]1,179,936.0
Natural gas received for processing	Billion cu. ft	(X)	16,002.0	2,569.3	(X)	15,641.6	(NA)
Residue gas:							
Shipped	...do	(X)	14,395.8	2,431.6	(X)	[27]14,299.0	(NA)
Used for fuel at plant	...do	504.0	(X)	(X)	522.9	(X)	(X)
NONMETALLIC MINERALS, EXCEPT FUELS[1]							
Dimension stone, total	1,000 short tons	(NA)	2,761.7	90.9	(NA)	2,011.1	95.5
Rough (net)	...do	(NA)	1,915.0	25.6	(NA)	[28]1,011.0	[28]22.4
Dressed	...do	(NA)	846.7	65.3	(NA)	[28]1,000.0	[28]73.1
Limestone, total	...do	(NA)	1,230.7	19.5	(NA)	561.0	16.6
Rough (net)	...do	(NA)	989.7	9.2	(NA)	279.0	4.5
Dressed	...do	(NA)	241.0	10.3	(NA)	282.0	12.1
Granite, total	...do	(NA)	725.1	37.4	(NA)	630.0	39.0
Rough (net)	...do	(NA)	367.3	8.8	(NA)	337.0	11.8
Dressed	...do	(NA)	357.8	28.5	(NA)	293.0	27.2
Stone, n.e.c., total	...do	(NA)	806.0	34.1	(NA)	820.0	39.9
Rough (net)	...do	(NA)	558.0	7.6	(NA)	[28]395.0	[28]6.1
Dressed	...do	(NA)	248.0	26.5	(NA)	[28]425.0	[28]33.8
Crushed and broken stone (net), total	...do	(NA)	(NA)	(NA)	(NA)	[29]783,559.0	[29]1,111.5
Excluding Federal, State, and local government operations	...do	[30]706,007.5	588,286.2	946.0	(NA)	(NA)	(NA)
Commercial	...do	(NA)	(NA)	(NA)	(NA)	[29]720,594.0	[29]1,034.7
Government and contractor	...do	(NA)	(NA)	(NA)	(NA)	62,965.0	76.8
Limestone[31]	...do	[30]548,515.5	436,688.4	647.0	(NA)	568,902.0	783.1
Granite[31]	...do	[30]67,553.0	64,879.5	110.3	(NA)	62,443.0	[29]94.7
Stone, n.e.c.[31]	...do	[30]89,939.0	86,718.3	188.4	(NA)	[29]152,214.0	[29]233.7
Construction sand, total	Million short tons	(NA)	(NA)	(NA)	(NA)	333.9	324.0
Excluding Federal, State, and local government operations	...do	389.6	371.9	386.4	(NA)	(NA)	(NA)
Commercial	...do	(NA)	(NA)	(NA)	(NA)	279.8	280.7
Government and contractor	...do	(NA)	(NA)	(NA)	(NA)	54.0	43.3
Glass sand	...do	9.5	9.5	34.0	(NA)	9.3	30.3
Molding sand	...do	8.5	8.4	27.8	(NA)	9.5	26.9
Industrial sand, n.e.c.	...do	6.8	6.6	29.0	(NA)	6.6	28.6
Gravel, total	...do	(NA)	(NA)	(NA)	(NA)	547.8	571.9
Excluding Federal, State, and local government operations	...do	228.6	224.8	271.9	(NA)	(NA)	(NA)
Commercial	...do	(NA)	(NA)	(NA)	(NA)	362.4	411.8
Government and contractor	...do	(NA)	(NA)	(NA)	(NA)	185.4	160.1
Bentonite:							
Crude bentonite	1,000 short tons	[32]2,207.7	[15]362.6	[15]1.7	(NA)	(NA)	(NA)
Net shipments by the mineral industries	...do	(X)	1,973.9	20.1	[33]2,042.8	(NA)	[33]20.5
Fire clay:							
Crude fire clay	...do	4,251.0	2,097.2	16.2	[33]7,972.4	(NA)	[33]42.2
Prepared fire clay	...do	(NA)	826.7	6.0			

See footnotes at end of table.

TABLE 7. 1967 Bureau of the Census and Bureau of Mines Statistics Compared —Continued

Product	Unit of measure	Bureau of the Census statistics			Bureau of Mines statistics		
		Production (quantity)	Shipments, including interplant transfers: Quantity	Shipments, including interplant transfers: Value (million dollars)	Production[1] (quantity)	Shipments[1]: Quantity	Shipments[1]: Value (million dollars)
NONMETALLIC MINERALS, EXCEPT FUELS[1]--Continued							
Fuller's earth (net shipments)	1,000 short tons	(X)	761.2	19.7	[33]803.9	(NA)	[33]20.5
Kaolin and ball clay:							
Crude kaolin and ball clay	do	[32]6,277.6	[15]415.3	[15]3.1	[33]4,532.0	(NA)	[33]88.8
Prepared kaolin and ball clay	do	(NA)	4,087.2	85.6			
Feldspar							
Crude feldspar	do	1,190.6	34.6	0.2	[33]689.2	(NA)	[33]7.1
Prepared feldspar	do	(NA)	635.2	8.8	(NA)	663.2	8.8
Common clay and shale:							
Crude common clay and shale	do	[34]30,701.0	1,600.7	2.9	[33]39,312.0	(NA)	[33]52.0
Prepared common clay and shale	do	(NA)	6,436.8	32.2			
Other clay, ceramic, and refractory minerals:							
Crude	do	(NA)	206.6	1.5	(NA)	(NA)	(NA)
Prepared	do	(NA)	1,119.3	17.6	(NA)	(NA)	(NA)
Barite:							
Crude barite	do	974.0	203.6	2.4	[35]944.0	(NA)	(NA)
Prepared barite	do	(NA)	(D)	(D)	1,320.0	[36]1,315.0	33.0
Net shipments by the barite industry	do	(X)	[15]959.6	[15]19.5	(X)	[33]962.0	[33]11.6
Fluorspar:							
Production and shipments:							
Crude fluorspar	do	829.4	152.9	1.1	83.9	(NA)	(NA)
Prepared fluorspar	do	[37]391.3	[37]387.5	[37]15.5	284.0	(NA)	(NA)
Net shipments	do	(X)	([38])	13.2	(X)	[39]29.6	[39]13.2
Crude fluorspar prepared	do	[37]1,035.7	(NA)	(NA)	915.0	(NA)	(NA)
Potash, soda, and borate minerals:							
Potassium salts:							
Crude salts	do	21,340.0	[40]5,486.4	[40]102.5	18,906.0	(NA)	(NA)
Processed or refined salts	do	5,573.4			[41]5,649.0	(NA)	[24]105.3
Sodium carbonates	do	(NA)	1,754.7	37.1	(NA)	[33]1,726.0	[33]40.5
Sodium sulfates	do	(NA)	1,554.4	66.7	(NA)	[33]637.0	[33]10.7
Boron compounds	do	(NA)			(NA)	[33]955.0	[33]74.1
Phosphate rock:							
Crude ore or matrix	1,000 long tons	114.8	5.3	13.5	129.0	(NA)	(NA)
Washed or concentrated	do	30.6	15.4	72.1	36.0	(NA)	(NA)
Dried, calcined, or sintered	do	27.2	27.0	208.4	(NA)	(NA)	(NA)
Net shipments	do	(X)	[15]534.4 [42]32.4	[15]241.9 [42]240.8	(X)	[33]37.8	[33]251.2
Rock salt	1,000 short tons	(NA)	[15]11,747.8	[15]79.8	(NA)	[33]11,661.0	[33]72.0
Native sulfur and sulfur ore	1,000 long tons	7,004.1	7,607.3	271.2	7,015.0	7,683.0	251.7
Frasch process sulfur	do	7,004.1	7,607.3	271.2	7,014.0	7,682.0	251.7
Sulfur ore	do				1.0	1.0	(Z)
Gypsum:							
Crude	1,000 short tons	[43]9,229.5	585.1	1.5	9,313.0	(NA)	34.4
Prepared (crushed, ground, screened, or dried)	do	(NA)	5,021.1	23.0	(NA)	(NA)	(NA)
Mica:							
Hand cobbed and sheet mica	1,000 lbs	-	-	-	[33]20.5	(NA)	(D)
Scrap (or flake) mica	1,000 short tons	156.0	[44]35.0	[44]1.1	[33]119.5	(NA)	[33]2.9
Ground mica	do	[45]119.6	[45]119.7	[45]5.9	[33]97.0	(NA)	[33]5.8
Native asphalt and bitumens:							
Gilsonite	do	(D)	(D)	8.7	1,867.7	(NA)	8.1
Bituminous limestone and sandstone	do	1,698.0	1,698.0				
Pumice and pumicite	do	1,329.3	1,322.1	3.3	[33] [46]3,446.0	(NA)	[33] [46]5.1
Talc, soapstone, and pyrophyllite:							
Crude	do	980.9	[44]293.9	[44]3.2	[47]963.5	(NA)	[47]6.7
Prepared	do	[48]611.7	[48]604.6	[48]17.0	[47] [49]781.0	(NA)	[47] [49]20.2
Natural abrasives, except sand	do	104.8	103.2	5.7	[33]94.0	(NA)	[33]2.8

See footnotes at end of table.

TABLE 7. 1967 Bureau of the Census and Bureau of Mines Statistics Compared —Continued

Product	Unit of measure	Bureau of the Census statistics			Bureau of Mines statistics		
		Production (quantity)	Shipments, including interplant transfers: Quantity	Shipments, including interplant transfers: Value (million dollars)	Production[1] (quantity)	Shipments[1]: Quantity	Shipments[1]: Value (million dollars)
NONMETALLIC MINERALS, EXCEPT FUELS--Continued							
Peat	1,000 short tons	587.2	587.6	8.4	[49]620.0	(NA)	[49]6.8
Asbestos, crude and prepared	do	119.5	122.2	11.2	[50]123.2	(NA)	[50]11.1
Diatomite, prepared	do	[51]706.1	[51]618.3	[51]37.3	[52]627.2	(NA)	[52]34.0
Perlite	do	538.1	[53]414.9	[53]4.8	[33]413.0	(NA)	[33]4.0
Shell	do	13.7	13.8	24.5	[33]22.0	(NA)	[33]33.3
Other nonmetallic minerals	do	(NA)	(NA)	10.0	(X)	(NA)	8.7

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $50 thousand. n.e.c. Not elsewhere classified.

[1]For nonmetallic minerals (except fuels), unless otherwise noted, figures represent minerals "sold or used by producers".

[2]Manganiferous iron ore is included with "iron ore, except manganiferous iron ore."

[3]Represents direct-shipping ore, treated ores to consumers, and agglomerates.

[4]Represents manganiferous iron ore and for Minnesota ferruginous manganese ore.

[5]Represents only ores mined in the Copper Ores, Lead and Zinc Ores, Lode Gold, and Silver Ores Industries.

[6]Census quantity figures represent gross metal content; Bureau of Mines quantity figures represent recoverable metal content of mine production.

[7]Estimated by the Bureau of Mines from the quantity of mine production and an average price. For copper, lead, and zinc, represents the weighted average unit price of domestic refined metals delivered to purchasers. For gold, represents the price under authority of the Gold Reserve Act of January 31, 1944. For silver, represents the Treasury buying price for newly mined silver.

[8]Represents copper ore sold or treated.

[9]Represents lead ore; zinc ore; lead-zinc ore; and copper-lead, copper-zinc, and copper-lead-zinc ores.

[10]Represents gold and gold-silver ore produced

[11]Represents metal contained in gold ore and gold-silver ore produced less mill bullion produced.

[12]Represents production.

[13]Represents silver ore and old tailings produced.

[14]Represents metal contained in silver ore.

[15]Represents gross shipments less receipts from other establishments for preparation or treatment.

[16]Represents manganese ore (35 percent or more manganese) and ferruginous manganese ore, except in Minnesota. These shipments represent marketable ores for the consumer. Besides direct-shipping ore, they include without duplication concentrates and nodules made from domestic ores.

[17]Represents mercury ores treated.

[18]Represents value of production calculated at average New York price.

[19]Excludes concentrates which were withheld to avoid disclosing individual company data.

[20]Represents uranium ore shipped to mills. The value figure represents the value of such ore at the mine.

[21]Includes slurry, and low-grade concentrates shipped to mills for further upgrading.

[22]Represents 8 thousand tons of U_3O_8 contained in uranium concentrates valued at $117,000 thousand and 5 thousand tons of vanadium contained in vanadium ores and concentrates valued at $21,331 thousand.

[23]Represents raw coal shipped for use without preparation plus prepared coal.

[24]Represents value of production.

[25]Represents crude petroleum shipped plus crude petroleum produced and used at the same establishment in lease operations.

[26]Represents marketed production, "comprising gas sold or consumed by producers, including losses in transmission, amounts added to storage, and increases in gas in pipe lines." Census figures show 640.5 billion cubic feet of gas produced and used in the same establishment in lease operations and net increase in underground storage of 2.5 billion cubic feet; these figures are not included in the Census shipments figures shown.

[27]Represents "returned to formation," "shipped to transmission companies," "direct deliveries to consumers," and "unaccounted for".

[28]Figures for rough monumental marble are included with those for dressed monumental marble.

[29]Excludes shell.

[30]Represents stone shipments plus stone mined and used in the same establishment in making cement, lime, and other manufactured products.

[31]Census figures exclude operations by Federal, State, and local governments. Bureau of Mines figures represent totals for all stone sold or used by commercial, government, and contractor operations.

[32]Represents quantity mined and prepared at same establishment plus quantity of crude net shipments.

[33]Represents minerals sold or used by producers.

[34]Represents quantity mined and used at the same establishment in making cement, clay products, and prepared clay plus quantity of crude clay shipped.

[35]Represents mine or plant output of primary barite.

[36]Represents crushed and ground barite sold by producers.

[37]Includes foreign ores prepared in the United States.

[38]Not shown, since a significant tonnage cannot be computed by the only method available: subtraction of minerals received for preparation from the gross tonnage shipped, with both of these tonnages including large quantities of foreign ores.

[39]Represents shipments.

[40]Represents net shipments obtained from gross shipments of crude and processed or refined salts by subtracting shipments of crude salts to other establishments for processing or refining.

[41]Represents production of marketable potassium salts and probably includes some marketable crude salts.

[42]Represents shipments of crude ore or matrix, except to washer or concentrator; washed or concentrated rock, except to drier; and dried, calcined, or sintered rock.

[43]In addition to gypsum mined for shipment in crude or prepared form, includes 6,212.2 thousand tons of gypsum valued at approximately $24,009 thousand, produced and used in the same establishment in the manufacture of calcined gypsum products.

[44]Represents net shipments, that is gross shipments less minerals received for preparation.

[45]Excludes mica processed at establishments classified in the manufacturing industries.

[46]Includes volcanic cinder.

[47]Excludes dimension soapstone.

[48]Excludes ores processed at establishments classified in the manufacturing industries.

[49]Represents sales.

[50]Represents gem stones, vermiculite, graphite, greensand marl, staurolite, and for other Census items not elsewhere classified.

[51]Includes crude diatomite produced for shipment without preparation, amounting to less than one percent of the total.

[52]Represents average annual production, 1960-1962.

[53]Includes some expanded perlite produced in conjunction with mining.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

Appendix B

INDUSTRY DESCRIPTIONS

This appendix contains descriptions of the 53 4-digit industries for which data were compiled and published in the 1967 Census of Mineral Industries. The industries are the same as those described in the 1967 edition of the Standard Industrial Classification (SIC) Manual.

The industry titles and descriptions, in general, agree with those appearing in the SIC manual, but the descriptions have been expanded in some instances to include references to additional products classified in other industries.

10 METAL MINING

101 Iron Ores

1011 **Iron Ores.**—Establishments primarily engaged in mining, beneficiating, or otherwise preparing iron ores and manganiferous ores valued chiefly for their iron content. The industry includes the production of sinter and other agglomerates in association with mining and beneficiating activities. Blast furnaces primarily engaged in producing pig iron from iron ore are classified as manufacturing plants in industry 3312, Blast Furnaces and Steel Mills. The production of sinter and other agglomerates in conjunction with blast furnace operations is also classified as manufacturing.

102 Copper Ores

1021 **Copper Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing copper ores. This industry also includes establishments primarily engaged in the recovery of copper concentrates by precipitation and leaching of copper ore. Establishments primarily engaged in the recovery of refined copper by leaching copper concentrates are classified in Major Group 33, Primary Metal Industries.

103 Lead and Zinc Ores

1031 **Lead and Zinc Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing lead ores, zinc ores, or lead-zinc ores.

104 Gold and Silver Ores

1042 **Lode Gold.**—Establishments primarily engaged in mining gold ores from lode deposits. In addition to ore dressing methods such as crushing, grinding, gravity concentration, and froth flotation, this industry includes amalgamation, cyanidation, and the production of bullion at the mine or mill site.

1043 **Placer Gold.**—Establishments primarily engaged in recovery of gold from placer deposits by any method. This industry includes the production of bullion at the mine, mill, or dredge site.

1044 **Silver Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing silver ores. The production of bullion at the mine or mill site is included.

105 Bauxite and Other Aluminum Ores

1051 **Bauxite and Other Aluminum Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing bauxite and other aluminum ores. Associated activities such as drying, calcining, activating, and sintering are also included.

106 Ferroalloy Ores, Except Vanadium

1062 **Manganese Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing manganese ores, such as pyrolusite, rhodochrosite, psilomelane, and manganite. The mining of manganiferous iron ores valued chiefly for their iron content is classified in industry 1011, Iron Ores.

1064 **Tungsten Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing tungsten ores, such as ferberite, huebnerite, scheelite, and wolframite.

1069 **Ferroalloy Ores, Except Vanadium, Not Elsewhere Classified.**—Establishments primarily engaged in mining, milling, or otherwise preparing ferroalloy ores, n.e.c., such as chromite, columbite, and nickel ore. Titanium ore, used sometimes for ferroalloying but principally for other purposes, is classified in industry 1093, Titanium Ores.

108 Metal Mining Services

1081 **Metal Mining Services.**—Establishments primarily engaged in metal mining services for others on a contract, fee, or other basis, such as removal of overburden, strip mining, prospect and test drilling, and mine exploration and development. Establishments primarily engaged in performing hauling services are excluded from this industry.

109 Miscellaneous Metal Ores

1092 **Mercury Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing mercury ores. This industry includes the production of metallic mercury by furnacing or retorting at the mine site.

1093 **Titanium Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing titanium ores.

1094 **Uranium-Radium-Vanadium Ores.**—Establishments primarily engaged in mining, milling, or otherwise preparing uranium-radium-vanadium ores.

1099 **Metallic Minerals (Ores), Not Elsewhere Classified.**—Establishments primarily engaged in mining, milling, or otherwise preparing miscellaneous metallic minerals (ores), not elsewhere classified, such as antimony, beryllium, germanium, palladium, tin, zirconium, and rare-earth ores.

11 ANTHRACITE MINING

111 Anthracite

1111 **Anthracite.**—Establishments primarily engaged in producing anthracite or in developing anthracite mines. All

establishments in the United States that are classified in this industry are in Pennsylvania. This industry includes underground mines, stripping or culm-bank operations by owners or lessees, dredge operations, and coal preparation plants (breakers, washeries, and screening plants) whether or not operated in conjunction with the mines served.

1112 **Anthracite Mining Services.**—Establishments primarily engaged in overburden stripping and strip mining for fresh or culm-bank anthracite for others on a contract, fee, or other basis and other establishments primarily engaged in performing anthracite mining services, such as drilling, mine tunnelling, shaft sinking, and pumping or draining mines.The production of fuel briquets and packaged fuel is classified in industry 2999, Petroleum and Coal Products, N.E.C., and the production of manufactured gas from coal in industry 4925, Mixed, Manufactured, or L.P. Gas Production and/or Distribution.

12 BITUMINOUS COAL AND LIGNITE MINING

121 Bituminous Coal and Lignite Mining

1211 **Bituminous Coal.**—Establishments primarily engaged in producing bituminous coal or in developing bituminous coal mines. This industry includes underground mining, auger mining, strip mining, and coal cleaning, crushing, screening, and sizing plants whether or not operated in conjunction with the mines served.

1212 **Lignite.**—Establishments primarily engaged in producing lignite or in developing lignite mines.

1213 **Bituminous Coal and Lignite Mining Services.**—Establishments primarily engaged in overburden stripping and strip and auger mining of bituminous coal or lignite for others on a contract, fee, or other basis and other establishments primarily engaged in performing bituminous coal and lignite mining services, such as drilling, shaft sinking, and mine tunnelling. The production of coke is classified in industry 3312, Blast Furnaces and Steel Mills. The production of fuel briquets and packaged fuel is classified in industry 2999, Petroleum and Coal Products, N.E.C., and the production of manufactured gas from coal in industry 4925, Mixed, Manufactured, or L.P. Gas Production and/or Distribution.

13 CRUDE PETROLEUM AND NATURAL GAS

131 Crude Petroleum and Natural Gas

1311 **Crude Petroleum and Natural Gas.**—Establishments primarily engaged in operating oil and gas field properties. Such activities include exploration for crude petroleum and natural gas; drilling, completing, and equipping wells; and the operation of separators, emulsion breakers, desilting equipment; and all other activities incident to making oil and gas marketable up to the point of shipment from the producing property. This industry also includes production of oil through the mining and extraction of oil from oil shale and oil sands. Production of natural gas liquids is classified in industry 1321, Natural Gas Liquids. Establishments primarily engaged in performing oil field services for operators on a contract, fee, or other basis are classified in Group 138, Oil and Gas Field Services. Pipe line transportation of petroleum, gasoline, and other petroleum products is classified in Major Group 46, and pipe line transportation of natural gas in industries 4922 and 4923. Establishments primarily engaged in petroleum refining and in the production of lubricating oils and greases are classified in Major Group 29, Petroleum Refining and Related Industries.

132 Natural Gas Liquids

1321 **Natural Gas Liquids.**—Establishments primarily engaged in producing liquid hydrocarbons from oil and gas field gases. Establishments recovering liquefied petroleum gases incident to petroleum refining or to the manufacturing of chemicals are classified in Major Groups 28 or 29.

138 Oil and Gas Field Services

1381 **Drilling Oil and Gas Wells.**—Establishments primarily engaged in drilling wells for oil or gas for others on a contract, fee, or other basis. This industry includes contractors that specialize in "spudding in," "drilling in," redrilling, and directional drilling.

1382 **Oil and Gas Exploration Services.**—Establishments primarily engaged in geophysical, geological, and other exploration work on a contract, fee, or other basis.

1389 **Oil and Gas Field Services, N.E.C.**—Establishments primarily engaged in performing oil and gas field services, not elsewhere classified, for others on a contract, fee, or other basis, such as excavating slush pits and cellars; grading and building foundations at well locations; well surveying; running, cutting, and pulling casings, tubes, and rods; cementing wells; shooting wells; perforating well casing; acidizing and chemically treating wells; and cleaning out, bailing, and swabbing wells.

14 MINING AND QUARRYING OF NONMETALLIC MINERALS, EXCEPT FUELS

141 Dimension Stone

1411 **Dimension Stone.**—Establishments primarily engaged in mining or quarrying dimension stone. Also included are establishments primarily engaged in producing rough blocks and slabs. Establishments primarily engaged in mining or quarrying and shaping grindstones, pulpstones, millstones, burrstones, and sharpening stones are classified in industry 1497; and those mining or quarrying dimension soapstone in industry 1496. Establishments primarily engaged in dressing (shaping, polishing, or otherwise finishing) rough blocks and slabs are classified in industry 3281, Cut Stone and Stone Products. Nepheline syenite operations are classified in industry 1459.

142 **Crushed and Broken Stone**

1422 **Crushed and Broken Limestone.**—Establishments primarily engaged in mining or quarrying crushed and broken limestone, including related rocks, such as dolomite, cement rock, marl, travertine, and calcareous tufa. Establishments primarily engaged in mining or preparing bituminous limestone and sandstone are classified in industry 1494, Native Asphalt and Bitumens.

1423 **Crushed and Broken Granite.**—Establishments primarily engaged in mining or quarrying crushed and broken granite, including related rocks, such as gneiss, syenite, and diorite.

1424 **Crushed and Broken Stone, N.E.C.**—Establishments primarily engaged in mining or quarrying crushed and broken stone, n.e.c., such as slate (including slate granules), marble, trap rock (basalt, diabase, gabbro, and related rocks), sandstone (including quartzite and ganister), and various light-colored volcanic rocks, mica schist, and mixed boulders.

144 **Sand and Gravel**

1442 **Construction Sand and Gravel.**—Establishments primarily engaged in operating sand and gravel pits and dredges, and in washing, screening, and otherwise preparing sand and gravel for construction uses.

1446 **Industrial Sand.**—Establishments primarily engaged in operating sand pits and dredges, and in washing, screening, and otherwise preparing sand for uses other than construction, such as glass making, molding, and abrasives.

145 **Clay, Ceramic, and Refractory Minerals**

1452 **Bentonite.**—Establishments primarily engaged in mining, milling, or otherwise preparing bentonite. Establishments engaged in preparing bentonite which do not include a mine are classified in the manufacturing industry 3295, Minerals and Earths, Ground or Otherwise Treated.

1453 **Fire Clay.**—Establishments primarily engaged in mining, milling, or otherwise preparing fire clay, including stoneware clay and diaspore. For mines producing fire clay as the principal product as part of an establishment manufacturing cement or clay, refractory, or pottery products, the entire establishment is classified in manufacturing. These operations were included in the following manufacturing industries: 3241, Cement, Hydraulic; 3251, Brick and Structural Tile; 3255, Clay Refractories; and 3259, Structural Clay Products, N.E.C.

1454 **Fuller's Earth.**—Establishments primarily engaged in mining, milling, or otherwise preparing fuller's earth.

1455 **Kaolin and Ball Clay.**—Establishments primarily engaged in mining, milling, or otherwise preparing kaolin or ball clay, including china clay, paper clay, and slip clay.

1456 **Feldspar.**—Establishments primarily engaged in mining, milling, or otherwise preparing feldspar. Establishments engaged in grinding feldspar which do not include a mine are classified in the manufacturing industry 3295, Minerals and Earths, Ground or Otherwise Treated.

1459 **Clay, Ceramic, and Refractory Minerals, Not Elsewhere Classified.**—Establishments primarily engaged in mining, milling, or otherwise preparing clay, ceramic, or refractory minerals, not elsewhere classified, such as common clay and shale, andalusite, aplite, brucite, dumortierite, kyanite, laterite, magnesite, olivine, pinite, sillimanite, and topaz (nongem). Establishments producing common clay and shale in conjunction with the manufacture of structural clay products are classified in Major Group 32, Stone, Clay, and Glass Products. Such combinations of mining and manufacturing establishments were included in the following manufacturing industries: 3241, Cement, Hydraulic; 3251, Brick and Structural Tile; 3253, Ceramic Wall and Floor Tile; 3255, Clay Refractories; and 3259, Structural Clay Products, N.E.C.

147 **Chemical and Fertilizer Mineral Mining**

1472 **Barite.**—Establishments primarily engaged in mining, milling, grinding, or otherwise preparing crude barite. Establishments engaged in grinding barite which do not include a mine are classified in manufacturing industry 3295, Minerals and Earths, Ground or Otherwise Treated.

1473 **Fluorspar.**—Establishments primarily engaged in mining, milling, or otherwise preparing fluorspar.

1474 **Potash, Soda, and Borate Minerals.**—Establishments primarily engaged in mining, milling, or otherwise preparing natural potassium, sodium, or boron compounds (other than common salt). Products of the industry include potash salts, sodium borates (borax, kernite, ulexite), sodium carbonates (soda ash, trona), sodium sulfates (principally Glauber's salt), and colemanite, a calcium borate. Dry-lake brine operations are included in this industry as well as establishments engaged in producing the specified minerals from underground and open-pit mines.

1475 **Phosphate Rock.**—Establishments primarily engaged in mining, milling, drying, or otherwise preparing phosphate rock, including apatite. Establishments primarily engaged in the production of phosphoric acid, superphosphates, or other manufactured phosphate compounds or chemicals are classified in Major Group 28, Chemicals and Allied Products.

1476 **Rock Salt.**—Establishments primarily engaged in mining, crushing, and screening rock salt. Establishments primarily engaged in manufacturing edible salt from rock salt and from natural or artificial brines are classified in manufacturing industry 2899, Chemicals and Chemical Preparations, N.E.C.

1477 **Sulfur.**—Establishments primarily engaged in mining native sulfur, including the extraction of native sulfur

at well operations and mining and beneficiating sulfur ore. The mining of pyrites for sulfur is included in industry 1479, Chemical and Fertilizer Mineral Mining, N.E.C. The recovery of sulfur from beneficiation of natural gas is included in manufacturing industry 2819, Industrial Inorganic Chemicals, N.E.C.

1479 **Chemical and Fertilizer Mineral Mining, N.E.C.**—Establishments primarily engaged in mining, milling, or otherwise preparing chemical or fertilizer mineral raw materials, n.e.c., such as arsenic minerals, guano, lithium minerals, mineral pigments, pyrites, and storntium minerals.

148 **Nonmetallic Minerals (Except Fuels) Services**

1481 **Nonmetallic Minerals (Except Fuels) Services.**—Establishments primarily engaged in performing nonmetallic minerals (except fuels) services for others on a contract, fee, or other basis. The principal services performed in this industry are prospect, test, and other drilling; overburden stripping and strip mining; sinking mine shafts and driving mine tunnels; and exploration work. Establishments primarily engaged in performing hauling services are excluded from this industry.

149 **Miscellaneous Nonmetallic Minerals, Except Fuels**

1492 **Gypsum.**—Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing gypsum. Calcining activities are excluded. However, if a gypsum mine is part of an establishment producing gypsum products, the entire establishment is classified in the manufacturing industry 3275, Gypsum Products.

1493 **Mica.**—Establishments primarily engaged in mining, milling, or otherwise preparing mica. Establishments engaged in grinding mica which do not include a mine are classified in the manufacturing industry 3295, Minerals and Earths, Ground or Otherwise Treated.

1494 **Native Asphalt and Bitumens.**—Establishments primarily engaged in mining, milling, or otherwise preparing native asphalt and bitumens, including gilsonite, wurtzilite, grahamite, and ozokerite. The mining of bituminous limestone and bituminous sandstone is also included.

1495 **Pumice and Pumicite.**—Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing pumice and pumicite (volcanic ash).

1496 **Talc, Soapstone, and Pyrophyllite.**—Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing talc, soapstone, or pyrophyllite. Dimension soapstone is included in this industry. Establishments engaged in grinding talc, soapstone, or pyrophyllite which do not include a mine are classified in the manufacturing industry 3295, Minerals and Earths, Ground or Otherwise Treated.

1497 **Natural Abrasives, Except Sand.**—Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing natural abrasives, such as corundum, industrial diamonds, emery, garnet, and tripoli. This industry includes the shaping of natural abrasive stones at the quarry. Establishments primarily engaged in the production of blast, grinding, or polishing sand are classified in industry 1446, Industrial Sand, and those primarily engaged in the production of diatomite in industry 1499, Miscellaneous Nonmetallic Minerals, N.E.C.

1498 **Peat.**—Establishments primarily engaged in mining peat, and in the preparation of peat.

1499 **Miscellaneous Nonmetallic Minerals, Not Elsewhere Classified.**—Establishments primarily engaged in mining, quarrying, milling, or otherwise preparing miscellaneous nonmetallic minerals, not elsewhere classified, such as asbestos, diatomite, natural gem stones, graphite, greensand, perlite, Iceland spar (optical grade calcite), and vermiculite.

Appendix C

AUTHORITY FOR CENSUS: TITLE 13, UNITED STATES CODE

(Codification of August 1954 amended by Acts of August 1957, September 1960, June and October 1962, and August 1964)

Collection and publication: Five-year periods (131)

The Secretary shall take, compile, and publish censuses of manufactures, of mineral industries, and of other businesses... in the year 1964, then in the year 1968, and every fifth year thereafter, and each such census shall relate to the year immediately preceding the taking thereof.

Geographic scope of censuses (191a)

Each of the censuses authorized by this chapter (other than censuses of population) shall include each State, the District of Columbia, Alaska, Hawaii, the Virgin Islands, Guam, and the Commonwealth of Puerto Rico, and as may be determined by the Secretary, such other possessions and areas over which the United States exercises jurisdiction, control, or sovereignty. Censuses of population shall include all geographic areas referred to in the preceding sentence. Inclusion of other areas over which the United States exercises jurisdiction or control shall be subject to the concurrence of the Secretary of State.

Failure to answer questions affecting companies, businesses, religious bodies, and other organizations: False answers (224)

Whoever, being the owner, official, agent, person in charge, or assistant to the person in charge, of any company, business, institution, establishment, religious body, or organization of any nature whatsoever, neglects or refuses, when requested by the Secretary or other authorized officer or employee of the Department of Commerce or bureau or agency thereof, whether such request be made by registered mail, by certified mail, by telegraph, by visiting representative, or by one or more of these methods, to answer completely and correctly to the best of his knowledge all questions relating to his company, business, institution, establishment, religious body, or other organization, or to records or statistics in his official custody, contained on any census or other schedule prepared and submitted to him under the authority of this title, shall be fined not more than $500 or imprisoned not more than sixty days, or both; and if he willfully gives a false answer to any such question, he shall be fined not more than $10,000 or imprisoned not more than one year, or both.

Appendix D

ALPHABETIC INDEX OF PRODUCTS AND SERVICES OF MINERAL ESTABLISHMENTS

This index provides an alphabetic list of products and services, classified in the mineral industries, for which data are shown in table 6's of the industry chapters. The references in this index are to items for which statistics are either shown separately in that table or are included as part of a group of products or services. The index also includes products and services referred to in the industry descriptions in the text of the separate industry chapters.

References to products may be found in various tables in the industry chapters; however, more detailed product information is typically given in table 6. The industry codes are based on the 1967 edition of the Standard Industrial Classification (SIC) Manual published by the Bureau of the Budget.

It should also be noted that table 7 of chapter 1, General Summary, includes a comparison of quantity and value of selected mineral products as published in the 1967 Census of Mineral Industries and as published by the Bureau of Mines.

A

Abandoning of wells for oil or gas field operations....13898
Abrasives, natural (except quartz and sand)....14970
Acidizing and other chemical treatment of wells, except hydraulic fracturing....13898
Agate, crude....14991
Agate, prepared....14992
Agglomerates, iron....10112
Alabaster, crude....14921
Alabaster, prepared....14922
Alum, natural, crude....14741
Alum, natural, prepared....14742

Aluminum ores, crude....10511
Aluminum ores, prepared....10512
Amblygonite....14799
Amethyst, crude....14991
Amethyst, prepared....14992
Andalusite, crude....14591
Andalusite, prepared....14592
Anthracite, crushed....11112
Anthracite, mechanically cleaned....11112
Anthracite mining services....11128

Anthracite, prepared....11112
Anthracite, raw....11111
Anthracite, raw, shipments other than to coal preparation plants....11111
Anthracite, raw, shipped to coal preparation plants....11111
Anthracite, screened....11112
Anthracite, sized....11112
Anthracite, stripping overburden services....11128
Antimony concentrates....10992
Antimony ores, crude....10991
Apatite, crude....14751

Apatite, prepared....14752
Aplite, crude....14591
Aplite, prepared....14592
Argillite, crude, dimension stone....14191
Arsenic minerals....14799
Asbestos, crude....14991
Asbestos, prepared....14992
Ash, volcanic....14950
Asphalt, native....14940
Auger mining services, bituminous coal....12138
Auger mining services, lignite....12138

B

Bailing out wells, oil and gas field....13898
Ball clay, crude....14551
Ball clay, prepared....14552
Barite, crude....14721
Barite, crushed....14722
Barite flotation concentrates....14722
Barite, ground....14722
Barite, prepared....14722
Barium ores, crude....14721
Basalt, crude, dimension stone....14191

Basalt, crushed and broken....14292
Bastnaesite, crude....10991
Bastnaesite, prepared....10992
Bauxite, calcined or activated....10512
Bauxite, crude, undried....10511
Bauxite, crude, undried, for direct shipping....10511
Bauxite, dried....10512
Bentonite, crude....14521
Bentonite, prepared....14522
Beryllium concentrates....10992

Beryllium ores, crude....10991
Bitumens, native....14940
Bituminous coal, crushed....12112
Bituminous coal, mechanically cleaned....12112
Bituminous coal, prepared....12112
Bituminous coal, raw....12111
Bituminous coal, raw, shipments other than to coal preparation plants....12111
Bituminous coal, raw, shipped to coal preparation plants....12111
Bituminous coal, screened....12112
Bituminous coal, sized....12112

Bituminous limestone....14940
Bituminous sandstone....14940
Blasting services for anthracite mining....11128
Blasting services for bituminous coal mining....12138
Blasting services for lignite mining....12138
Blasting services for metal mining....10818
Blasting services for nonmetallic minerals (except fuels) mining....14818
Bleaching clay, crude....14551
Bleaching clay, prepared....14552
Bluestone, crude, dimension....14191
Board roads, building of, for oil or gas field operations....13898
Borate compounds and minerals, prepared....14744
Borax....14744
Boron compounds....14744

Boulders (mixed), crushed and broken....14292
Breakers, anthracite....11112
Brimstone....14770
Briquets, iron....10112
Brown coal, prepared....12112
Brown coal, raw....12111
Brown ore, crude....10111
Brown ore, treated....10112
Brucite....14593

Building board roads for oil or gas field operations....13898
Building, erecting, repairing and dismantling rigs and derricks for oil or gas field operations....13898
Building well foundations at well locations for oil or gas field operations....13898
Bullion, gold, produced at mine site....10423
Burley fire clay, crude....14531
Burley fire clay, prepared....14532
Burrstones, natural....14970
Butane, natural....13212

C

Calamine, crude....10331
Calamine, prepared....10332
Calaverite, crude....10421
Calaverite, prepared....10422
Calcareous tufa, crude, dimension....14121
Calcareous tufa, crushed and broken....14222
Calcined phosphate rock....14752
Calcite, optical grade, crude....14991
Calcite, optical grade, prepared....14992
Canal dredging for oil or gas field operations....13898

Carbonates, sodium....14743
Carnotite, crude....10941
Carnotite, prepared....10942
Catlinite, crude....14991
Catlinite, prepared....14992
Celestite....14799
Cement rock, crushed and broken....14222
Cementing wells for oil or gas field operations....13898
Cerium concentrates....10992
Cerium ores, crude....10991

Cerrusite, crude....10321
Cerrusite, prepared....10322
Chalcocite, crude....10211
Chalcocite, prepared....10212
Chalcopyrite, crude....10211
Chalcopyrite, prepared....10212
Chalk, crushed and broken....14222
Chasers....14970
Chemical treatment of wells for oil or gas field operations....13898

China clay, crude....14551
China clay, prepared....14552
Chromite, concentrates or prepared....10692
Chromite, crude....10691
Chromium concentrates....10692
Chromium ores, crude....10691
Cinnabar, crude....10921
Cinnabar, prepared....10923
Clay ball, crude....14551
Clay ball, prepared....14552

Clay, bleaching, crude....14551
Clay, bleaching, prepared....14552
Clay, ceramic and refractory minerals, crude....14591
Clay, ceramic and refractory minerals, prepared....14592
Clay, china, crude....14551
Clay, china, prepared....14552
Clay, common, crude....14591
Clay, common, prepared....14592
Clay, fire, crude....14531
Clay, fire, prepared....14532

Clay, paper, crude....14551
Clay, paper, prepared....14552
Clay, slip, crude....14551
Clay, slip, prepared....14552
Clays, natural, bleaching, crude....14551

Cleaning lease tanks for oil or gas field operations.....13898
Cleaning out, including steam cleaning, bailing out, or swabbing wells for oil or gas field operations.....13898
Cleaning plants, bituminous coal.....12112
Clearing locations for oil or gas field operations.....13898
Cobalt ores, concentrates.....10692
Cobalt ores, crude.....10691
Colemanite.. 14744
Columbite, crude.....10691
Columbite, prepared.....10692
Columbium ores, crude.....10691

Columbium ores, prepared.....10692
Common clay, crude.....14591
Common clay, prepared.....14592
Condensate, cycle.....13212
Construction of oil or gas pipe lines on lease; construction of gathering lines to point where distribution company takes over.....13898
Construction sand, crude.....14421
Construction sand, treated.....14422
Construction work for oil or gas field operations.....13898
Contract services, general, for oil or gas field operations...13898

Copper concentrates.....10212
Copper ore, crude.....10211
Copper ore, crude, and old tailings shipped to mills for treatment.....10211
Copper ore, crude, and old tailings shipped to smelters.....10211
Copper-water precipitates, including precipitates from ore leached in place.....10213
Core cutting in oil or gas wells.....13898
Core drilling, oil or gas field exploration services.....13828
Cornwall stone, crude.....14561
Corundum.....14970
Crane work-on lease, for oil or gas field operations.....13898
Crude oil.....13120

Crude petroleum.....13120
Cryolite, crude.....14991
Cryolite, prepared.....14992
Culm bank recovery, for anthracite (services).....11128
Cuprite, crude.....10211
Cuprite, prepared.....10212
Cutting casing, tubes or rods for oil or gas field operations.13898
Cutting cores in oil or gas wells.....13898
Cyanite, crude.....14591
Cyanite, prepared.....14592
Cycle condensate.....13212

D

Derrick building, repairing, and dismantling: oil or gas wells.....13898
Diabase, crude, dimension stone.....14191
Diabase, crushed and broken.....14292
Diamonds, industrial.....14970
Diaspore, crude.....14531
Diaspore, prepared.....14532
Diatomaceous earth, crude.....14991
Diatomaceous earth, prepared.....14992
Diatomite, crude.....14991
Diatomite, prepared.....14992

Dimension stone, rough, other than granite or limestone.....14191
Diorite, crude, dimension stone.....14131
Diorite, crushed and broken.....14232
Directional drilling for oil or gas field operations.....13818
Dirt work in oil or gas fields.....13898
Disposal systems, salt water, for oil or gas field operations.13898
Dolomite, crude, dimension stone.....14121
Dolomite, crushed and broken.....14222
Dolomitic marble, crude, dimension stone.....14191
Dolomitic marble, crushed and broken.....14292

Dragstones.....14970
Dredging canals for oil or gas field operations.....13898
Dried phosphate rock.....14752
Drill stem testing in oil, gas, dry and service well drilling.13898
Drilling, core, oil or gas field exploration services.....13828
Drilling, directional, oil or gas field.....13818
Drilling dry holes for gas and oil field.....13818
Drilling gas wells.....13818
Drilling oil wells.....13818
Drilling rat holes and mouse holes for oil or gas field operations.....13898
Drilling service on a contract, fee, or other basis for nonmetallic minerals (except fuels) mining.....14818
Drilling service wells for oil or gas field operations.....13818
Drilling services for anthracite mining.....11128
Drilling services for bituminous coal mining.....12138
Drilling services for lignite mining.....12138
Drilling services for metal mining.....10818
Drilling, shot hole, oil or gas field exploration services....13828
Drilling sites, preparation of, for oil or gas field operations.....13898
Drilling, stratigraphic oil or gas field exploration services.13828
Drilling water intake wells, oil or gas field.....13818
Drilling wells for gas or oil field operations.....13818
Driving keyways for oil or gas field operations.....13898
Dumortierite, crude.....14591
Dumortierite, prepared.....14592

E

Earth, diatomaceous, crude.....14991
Earth, diatomaceous, prepared.....14992
Earth, fuller's (including all natural bleaching clays).....14540
Emery.....14970
Engine installing for oil or gas field operations.....13898
Erecting, cleaning, repairing, and dismantling lease tanks for oil or gas field operations.....13898
Ethane, natural gas liquid.....13212

Excavating mud pits, slush pits, and cellars for oil or gas field operations.....13898
Exploration services for anthracite mining.....11128
Exploration services for bituminous coal mining.....12138
Exploration services for lignite mining.....12138
Exploration services for metal mining.....10818
Exploration services for nonmetallic minerals (except fuels) mining.....14818

F

Feldspar, crude.....14561
Feldspar, crushed or ground.....14562
Feldspar, prepared.....14562
Ferberite concentrates.....10642
Ferberite crude ores.....10641
Ferroalloy ores, except vanadium, crude.....10691
Fertilizer minerals, natural.....14799
Fire clay, crude (including plastic, flint, diaspore, burley and stoneware).....14531
Fire clay, plastic, crude.....14531
Fire clay, plastic, prepared.....14532
Fishing for tools (for oil or gas field operations).....13898

Flagstones, crude, dimension.....14191
Flint, fire clay, crude.....14531
Flint, fire clay, prepared.....14532
Flooding and water injection for oil or gas field operations..13898
Fluorite, crude.....14731
Fluorspar, crude.....14731
Fluorspar, crushed.....14732
Fluorspar flotation concentrates.....14732
Fluorspar, ground.....14732
Fluorspar, prepared.....14732
Fuller's earth.....14540

G

Gabbro, crude, dimension stone.....14191
Gabbro, crushed and broken stone.....14292
Galena, crude.....10321
Galena, prepared.....10322
Ganister, crushed and broken stone.....14292
Garnet.....14970
Gas, liquefied petroleum.....13212
Gas,natural.....13130
Gas, natural, liquid.....13212
Gas or oil field geological exploration.....13828
Gas or oil field geophysical exploration.....13828
Gas residue.....13213

Gases, petroleum, liquefied.....13212
Gasoline,natural.....13212
Gem stones, natural, crude.....14991
Gem stones, natural, prepared.....14992
General oil or gas field contracting.....13898
Geological exploration, oil or gas field.....13828
Geophysical exploration, oil or gas field.....13828
Geophysical surveying services for anthracite mining.....11128
Geophysical surveying services for bituminous coal mining.....12138
Geophysical surveying services for lignite mining..... ...12138
Geophysical surveying services for metal mining.....10818

Geophysical surveying services for the mining of nonmetallic minerals (except fuels).....14818
Gilsonite.....14940
Glass sand for melting only.....14430
Glauber's salt.....14743
Gneiss, crude, dimension.....14131
Gneiss, crushed and broken.....14232
Gold concentrates.....10422
Gold mill bullion and precipitates recovered by amalgamation..10423
Gold mill bullion and precipitates recovered by cyanidation...10423

Gold ore, lode, crude.....10421
Gold ore, lode, crude, and old tailings shipped to mills for treatment.....10421
Gold ore, lode, crude, and old tailings shipped to smelters...10421
Gold, placer.....10433
Grading well foundations at well locations for oil or gas field operations.....13898
Grahamite.....14940
Granite, crude, dimension stone.....14131
Granite, crushed and broken.....14232
Granules, slate.....14292

Graphite, crude.....14991
Graphite, prepared.....14992
Gravel, crude.....14421
Gravel, prepared.....14422
Gravel, run of pit or bank.....14421
Gravel, washed and screened.....14422
Greensand, crude.....14991
Greensand, prepared.....14992
Greenstone, crude, dimension.....14191

Grinding pebbles.....14970
Grindstones.....14970
Grits, crushed and broken stone.....14292
Guano.....14799
Gypsite, crude.....14921
Gypsite, prepared.....14922
Gypsum, crude.....14921
Gypsum, crushed, ground, screened or dried.....14922

H

Hematite, crude.....10111
Hematite, prepared.....10112
Hones.....14970
Huebnerite, crude.....10641
Huebnerite, prepared.....10642
Humus, peat.....14980
Hydraulic fracturing.....13898

I

Iceland spar, crude.....14991
Iceland spar, prepared.....14992
Ilmenite concentrates.....10932
Ilmenite ore, crude.....10931
Industrial sand.....14450
Installing production equipment for oil or gas field operations.....13898
Iridium.....10993
Iron briquets, agglomerates.....10112

Iron concentrates.....10112
Iron ore, crude.....10111
Iron ore, crude, beneficiating-grade and/or agglomeration-grade.....10111
Iron ore, crude, for direct shipping.....10111
Iron ore, treated.....10112
Iron pellets, agglomerates.....10112
Iron sinter, agglomerates.....10112
Isopentane, natural gas liquid.....13212

J

Jade, crude.....14991
Jade, prepared.....14992

K

Kaolin and ball clay, crude.....14551
Kaolin and ball clay, prepared.....14552
Kernite.....14744
Keyway driving for oil or gas field operations.....13898
Kyanite, crude.....14591
Kyanite, prepared.....14592

L

Laterite, crude.....14591
Laterite, prepared.....14592
Lead concentrates.....10322
Lead ore, crude.....10321
Lead ore, crude, and old tailings shipped to mills for treatment.....10321
Lead ore, crude, and old tailings shipped to smelters.....10321
Lease condensate.....13130
Lease maintenance for oil or gas field operations.....13898

Lease tanks, oil or gas field, erecting, cleaning and repairing.....13898
Lepidolite.....14799
Leveling for oil or gas field operations.....13898
Lignite, crushed.....12122
Lignite, mechanically cleaned.....12122
Lignite, prepared.....12122
Lignite, raw.....12121
Lignite, raw, shipped to coal preparation plants.....12121

Lignite, screened.....12122
Lignite, sized.....12122
Limestone, bituminous.....14940
Limestone, crude, dimension stone.....14121
Limestone, crushed and broken.....14222
Limonite, crude.....10111
Limonite, prepared.....10112
Liners, tube-mill.....14970

Liquefied petroleum gases.....13212
Liquids, natural gas.....13212
Lithium minerals.....14799
Location clearing for oil or gas field operations.....13898
Lode gold concentrates.....10422
Lode gold, crude.....10421
Lode gold, mill bullion.....10423
Logging wells, gas or oil field.....13898

M

Magnesite.....14593
Magnetite, crude.....10111
Magnetite, prepared.....10112
Manganese concentrates.....10622
Manganese and manganiferous ores, crude.....10621
Manganese nodules.....10622
Manganese ore, crude.....10621
Manganese ore, crude, beneficiating-grade and agglomeration grade.....10621
Manganese ore, crude, direct shipping.....10621
Manganese ores, treated.....10622

Manganese sinter.....10622
Manganiferous ores (valued chiefly for iron).....10111
Manganite, crude.....10621
Manganite, prepared.....10622
Marble, crude, dimension stone.....14191
Marble, including dolomitic marble, crushed and broken.....14292
Marcasite.....14799
Marl, crushed and broken.....14222
Meerschaum, crude.....14991
Meerschaum, prepared.....14992

Mercury ore, crude.....10921
Mercury ore, metal.....10923
Mica, crude.....14931
Mica, ground.....14932
Mica, hand-cobbed.....14931
Mica, prepared.....14932
Mica schist, crude, dimension.....14191
Mica schist, crushed and broken.....14292
Mica, scrap (flake).....14931
Mica, sheet.....14931

Microlite, crude.....10991
Microlite, prepared.....10992
Millstones.....14970
Mine shaft sinking services for anthracite mining.....11128
Mine shaft sinking services for bituminous coal mining.....12138
Mine shaft sinking services for lignite mining.....12138
Mine shaft sinking services for metal mining.....10818
Mine shaft sinking services for nonmetallic minerals (except fuels)mining.....14818
Mine tunneling services for anthracite mining.....11128
Mine tunneling services for bituminous coal mining.....12138
Mine tunneling services for lignite mining.....12138
Mine tunneling services for metal mining.....10818
Mine tunneling services for nonmetallic minerals (except fuels) mining.....14818

Mineral pigments, natural....14799
Molding sand....14440
Molybdenite, crude....10691
Molybdenite, prepared....10692
Molybdenum concentrates....10692
Molybdenum ores, crude....10691
Molybdite, crude....10691
Molybdite, prepared....10692

Monazite, crude....10991
Monazite, prepared....10992
Mouse hole and rat hole drilling for oil or gas field operations....13898
Mud logging for oil or gas field operations....13898
Mud pit excavating,for oil or gas field operations....13898
Muscovite, crude....14931
Muscovite, prepared....14932

N

Native asphalt....14940
Natural abrasives (except quartz)....14970
Natural gas....13130
Natural gas liquids....13212
Natural gas, offshore production....13130
Natural gasoline....13212
Nepheline syenite, crude....14591
Nepheline syenite, prepared....14592
Nickel concentrates....10692
Nickel ores, crude....10691

O

Ocher....14799
Offshore crude petroleum production....13120
Offshore natural gas production....13130
Oil, crude....13120
Oil or gas field exploration, including geological and geophysical....13828
Oil line drip, natural gas liquid....13212
Oilstones....14970
Olivine, crude....14591
Olivine, prepared....14592
Onyx marble, crude, dimension....14191

Onyx marble, crushed and broken....14292
Optical grade calcite, crude....14991
Optical grade calcite, prepared....14992
Osmium....10993
Overburden stripping services for anthracite mining....11128
Overburden stripping services for bituminous coal mining....12138
Overburden stripping services for lignite mining....12138
Overburden stripping services for metal mining....10818
Overburden stripping services for nonmetallic minerals (except fuels) mining....14818
Ozokerite....14940

P

Palladium....10993
Paper clay, crude....14551
Paper clay, prepared....14552
Paraffin services for oil or gas field operations....13898
Pavers....14970
Peat....14980
Pebbles, grinding....14970
Pegmatite (feldspar), crude....14561
Pennsylvania anthracite, raw....11111
Pennsylvania anthracite, prepared....11112

Perforating well casing, gas or oil field services....13898
Perlite, crude or prepared....14992
Petroleum, crude....13120
Petroleum, crude, offshore production....13120
Petroleum gases, liquefied....13212
Phlogopite, crude....14931
Phlogopite, prepared....14932
Phosphate rock, crude (ore or matrix)....14751

Phosphate rock, dried, calcined or sintered....14752
Phosphate rock, washed or concentrated....14752
Phosphate rock, washed or concentrated: shipped....14752
Pigments, mineral, natural....14799
Pinite, crude....14591
Pinite, prepared....14592
Pipe line construction on lease; construction of gathering lines to point where distribution company takes over (oil or gas only)....13898
Pipe testing for oil or gas field operations....13898
Pipestones, crude....14991
Pitchblende, crude....10941
Pitchblende, prepared....10942
Placer gold....10433
Placer silver....10443
Plastic fire clay, crude....14531
Plastic fire clay, prepared....14532
Platinum....10993
Platinum-group metals....10993

Plugging wells, oil or gas field services....13898
Potassium bromide....14742
Potassium salts, crude....14741
Potassium salts, processed or refined....14742
Propane (natural)....13212
Precious stones, crude....14991
Precious stones, prepared....14992
Preparation of drilling sites for oil or gas field operations....13898
Prospect and test drilling services for anthracite mining....11128

Prospect and test drilling services for bituminous coal mining....12138
Prospect and test drilling services for lignite mining....12138
Prospect and test drilling services for metal mining....10818
Prospect and test drilling services for nonmetallic minerals (except fuels) mining....14818
Psilomelane, crude....10621
Pulling casing, tubes, or rods for oil or gas field operations....13898
Pulpstones, natural....14970
Pumice....14950
Pumicite....14950
Pumps installed for oil or gas field operations....13898

Pyrite concentrates....14790
Pyrites, fines....14790
Pyrites, lump ore....14790
Pyrolusite, crude....10621
Pyrolusite, prepared....10622
Pyrophyllite, crude....14961
Pyrophyllite flotation concentrates....14962
Pyrophyllite, prepared....14962
Pyrophyllite, sawed, crushed or ground....14962
Pyrrhotite....14799

Q

Quartz crystal (pure), crude....14991
Quartz crystal (pure), prepared....14992
Quartzite, crude, dimension....14191
Quartzite, crushed and broken....14292
Quartzite, ganister, crushed and broken....14292
Quicksilver (metal), prepared at mine site....10923
Quicksilver ore....10921

R

Radium ores....10941
Rare-earth metal concentrates....10992
Rare-earth metal ores, crude....10991
Rat hole and mouse hole drilling for oil or gas field operations....13898
Raw anthracite for shipments....11111
Reconditioning wells for oil and gas field operations....13818
Remedial work, subsurface, for oil or gas field operations....13818
Residue gas....13213
Reworking wells, oil or gas field operations....13818

Rhodium....10993
Rhodochrosite, crude....10621
Rhodochrosite, prepared....10622
Rig building, repairing and dismantling oil or gas wells....13898
Rig skidding, for oil or gas field operations....13898
Rigs and derricks, built, erected, repaired and dismantled for oil or gas field operations....13898
Riprap, granite....14232
Riprap, limestone....14222
Riprap, miscellaneous stone (except limestone and granite)....14292

Roads, board, building of, for oil or gas field operations....13898
Rock salt (sodium chloride)....14760
Rock, volcanic, light colored, crushed and broken....14292
Rocks, volcanic, light colored, crude, dimension....14191
Rolling pipe for oil or gas field operations....13898
Roscoelite, crude....10941
Roscoelite, prepared....10942
Roustabout work for oil or gas field operations....13898
Rubber clay, crude....14551
Rubber clay, prepared....14552

Rubbing stones..... 14970
Rubble, except limestone and granite..... 14191
Rubble, granite..... 14131
Rubble, limestone..... 14121
Ruby, crude..... 14991
Ruby, prepared..... 14992
Running, cutting and pulling casing, tubes or rods for oil or gas field operations..... 13898
Ruthenium..... 10993
Rutile concentrates..... 10932
Rutile ore, crude..... 10931

S

Salt, common..... 14760
Salt (rock), sodium chloride..... 14760
Salt water disposal systems, for oil or gas field operations.. 13898
Sand, blast..... 14450
Sand blasting pipe lines on lease for oil or gas field operations..... 13898
Sand, common, crude..... 14421
Sand, common, prepared..... 14422
Sand, construction, prepared..... 14422
Sand, construction, run of pit or bank..... 14421
Sand, construction, screened..... 14422

Sand, construction, washed, screened, ground, or prepared..... 14422
Sand, engine..... 14450
Sand, filtration..... 14450
Sand, glass, for melting only..... 14430
Sand, grinding..... 14450
Sand, industrial..... 14450
Sand, molding..... 14440
Sand, oil..... 14450
Sandstone, bituminous..... 14940
Sandstone, crude, dimension..... 14191

Sandstone, crushed and broken..... 14292
Sapphire, crude..... 14991
Sapphire, prepared..... 14992
Scheelite, crude..... 10641
Scheelite, prepared..... 10642
Schist, mica, crude, dimension..... 14191
Schist, mica, crushed and broken..... 14292
Scoria..... 14950
Scythestones..... 14970
Seismograph surveys for oil or gas field operations..... 13828

Selenite, crude..... 14921
Selenite, prepared..... 14922
Semianthracite, prepared (outside of Pennsylvania)..... 12112
Semianthracite, prepared (Pennsylvania)..... 11112
Semianthracite, raw (outside of Pennsylvania)..... 12111
Semianthracite, raw (Pennsylvania)..... 11111
Semiprecious stones, crude..... 14991
Semiprecious stones, prepared..... 14992
Serpentine, crude, dimension stone..... 14191
Serpentine, crushed and broken stone..... 14292

Servicing oil or gas wells..... 13898
Shale, crude..... 14591
Shale, prepared..... 14592
Shell mining..... 14992
Shooting wells for oil or gas field operations..... 13898
Shot hole drilling, oil and gas field services..... 13828
Siderite (carbonate), crude..... 10111
Siderite concentrates..... 10112
Sienna..... 14799
Silica (from sand)..... 14430

Sillimanite, crude..... 14591
Sillimanite, prepared..... 14592
Silver concentrates..... 10442
Silver mill bullion and precipitates recovered by amalgamation 10443
Silver mill bullion and precipitates recovered by cyanidation. 10443
Silver ore, crude..... 10441
Silver ore, crude, and old tailings shipped to mills for treatment..... 10441
Silver ore, crude, and old tailings shipped to smelters..... 10441
Silver, placer..... 10443
Sintered iron..... 10112

Sintered phosphate rock..... 14752
Skidding of rigs for oil or gas field operations..... 13898
Slate, crude, dimension stone..... 14191
Slate, crushed and broken..... 14292
Slate granules, crushed and broken..... 14292
Slip clay, crude..... 14551
Slip clay, prepared..... 14552
Smithsonite, crude..... 10331
Smithsonite, prepared..... 10332
Soapstone, crude..... 14961
Soapstone, crushed, ground or sawed..... 14962
Soapstone flotation concentrates..... 14962
Soapstone, prepared..... 14962
Soda ash, natural..... 14743
Sodium borates..... 14744
Sodium carbonates, natural..... 14743
Sodium chloride (rock salt)..... 14760
Sodium sulfate..... 14743

Spar, Iceland, crude..... 14991
Spar, Iceland, prepared..... 14992
Sphalerite, crude..... 10331
Sphalerite, prepared..... 10332
Spodumene..... 14799
Spudding in wells for oil or gas field operations..... 13818
Staurolite, crude..... 14991
Staurolite, prepared..... 14992
Steam cleaning for oil or gas wells..... 13898
Steatite, crude..... 14961
Steatite, prepared..... 14962

Stone, crude, dimension other than limestone and granite..... 14191
Stone, crushed and broken, other than granite or limestone.... 14292
Stones, abrasive..... 14970
Stoneware fire clay, crude..... 14531
Stoneware fire clay, prepared..... 14532
Stratigraphic drilling, oil or gas field exploration..... 13828
Strip mining services for anthracite..... 11128
Strip mining services for bituminous coal..... 12138
Strip mining services for lignite..... 12138
Strip mining services for metal mining..... 10818
Strip mining services for nonmetallic minerals (except fuels). 14818

Stripping overburden services for anthracite mining..... 11128
Stripping overburden services for bituminous coal mining..... 12138
Stripping overburden services for lignite mining..... 12138
Stripping overburden services for metal mining..... 10818
Stripping overburden services for nonmetallic minerals (except fuels) mining..... 14818
Strontianite..... 14799
Strontium minerals..... 14799
Subbituminous coal, prepared..... 12112
Subbituminous coal, raw..... 12111
Subsurface remedial work for oil or gas field operations..... 13818

Sulfate, sodium..... 14743
Sulfur, native..... 14770
Surveying wells for oil or gas field operations..... 13898
Swabbing wells for oil or gas field operations..... 13898
Syenite (except nepheline), crude, dimension stone..... 14131
Syenite (except nepheline), crushed and broken..... 14232
Syenite (nepheline), crude..... 14591
Syenite (nepheline), prepared..... 14592
Sylvanite, crude..... 10421
Sylvanite, prepared..... 10422

T

Taconite concentrates or agglomerates..... 10112
Taconite, crude..... 10111
Tailing in wells, oil or gas field..... 13818
Talc, crude..... 14961
Talc, crushed, ground or sawed..... 14962
Talc, flotation concentrates..... 14962
Talc, prepared..... 14962
Tantalite, crude..... 10691
Tantalite, prepared..... 10692

Tantalum ores, crude..... 10691
Tantalum, prepared..... 10692
Telluride (gold) mining, crude..... 10421
Testing, drill-stem, for oil or gas field operations..... 13898
Testing, pipe, for oil or gas field operations..... 13898
Thorite, crude..... 10991
Thorite, prepared..... 10992
Thorium ores, crude..... 10991
Thorium, prepared..... 10992

Tin concentrates..... 10992
Tin metal ores, crude..... 10991
Titanium concentrates..... 10932
Titanium ore, crude..... 10931
Topaz (non-gem), crude..... 14591
Topaz (non-gem), prepared..... 14592
Trap rock, crude, dimension stone..... 14191
Trap rock, crushed and broken..... 14292
Travertine, crude, dimension stone..... 14121
Travertine, crushed and broken..... 14222
Tripoli..... 14970

Trona....14743
Tube-mill liners....14970
Tufa, calcareous, crude, dimension....14121
Tufa, calcareous, crushed and broken....14222
Tungsten concentrates....10642
Tungsten ores, crude....10641
Turquoise, crude....14991
Turquoise, prepared....14992

U

Ulexite....14744
Umber....14799
Uraninite, crude....10941
Uraninite, prepared....10942
Uranium-vanadium concentrates....10942
Uranium-vanadium ore, crude....10941

V

Vacuum truck service for oil or gas field operations....13898
Vanadium concentrates....10942
Vanadium ores, crude....10941
Verde antique, crude, dimension stone....14191
Verde antique, crushed and broken stone....14292
Vermiculite, crude....14991
Vermiculite, prepared....14992
Volcanic ash....14950
Volcanic rock, light colored, crude, dimension....14191
Volcanic rock, light colored, crushed and broken....14292

W

Washeries, anthracite....11112
Washeries, bituminous coal....12112
Water injection or flooding for oil or gas field operations....13898
Water intake well drilling for oil and gas field operations....13818
Well casing running, cutting and pulling for oil or gas field operations....13898
Well logging, oil or gas field....13898
Well plugging, for oil or gas field operations....13898
Well servicing, for oil or gas field operations....13898
Well surveying, for oil or gas field operations....13898
Wellhead fittings installed for oil or gas field operations....13898
Wells, oil, gas, dry, or service: reworking....13818
Wells, oil, gas, or service: drilling in, spudding in, tailing in....13818
Whetstones....14970
Whiting, crushed and broken....14222
Willemite, crude....10331
Willemite, prepared....10332
Wireline services for oil or gas field operations....13898
Wolframite, crude....10641
Wolframite, prepared....10642
Wollastonite, crude....14991
Wollastonite, prepared....14992
Workover of wells for oil or gas field operations....13818
Wulfenite, crude....10691
Wulfenite, prepared....10692
Wurtzilite....14940

Z

Zinc concentrates....10332
Zinc ore, crude....10331
Zinc ore, crude, and old tailings shipped to mills for treatment....10331
Zinc ore, crude, and old tailings shipped to smelters....10331
Zirconium concentrates....10992
Zirconium ores, crude....10991

Appendix E

CENSUS REPORT FORMS

This appendix contains reproductions of a representative selection of the reporting forms used in the 1967 economic censuses, with emphasis on the Census of Mineral Industries. The use of each of them is described in the Introduction, Section 7, "Reporting Forms." Following is a list of the forms included in this appendix:

Number	Title
NC-X1A	1967 Report of Company Organization (a precanvass report form mailed to all multiunits known from previous census records)
NC-X1B	1967 Report of Company Organization (a precanvass report form mailed to firms regarded as possible multiunits, including mining companies with 250 employees or more who were not on the NC-X1A list)
NC-X3	General Schedule
NC-X6	Central Administrative Office or Auxiliary Establishment report
NC-K1	Company Summary Report
NC-K13	Company Exploration Expenditures and Assets for Oil and Gas Field Operations
--	General minerals report form (contains general statistics items for which data were collected from all mineral establishments)
MC-13A	Oil and Gas Field Operations report form (an example of the special inquiries items mailed to each oil and gas establishment. The inquiries on this report form were tailored to reflect the uniqueness of each industry)
--	Instruction Manual for Oil and Gas Field Operations, Form MC-13A (an example of the instruction manual mailed to mineral establishments)

DUE DATE: WITHIN 20 DAYS AFTER RECEIPT

Budget Bureau No. 41-66141; Approval Expires December 31, 1967

FORM NC-X1A (6-2-66)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1967 REPORT OF COMPANY ORGANIZATION

NOTICE – Response to this inquiry is required by law (Title 13 U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report please refer to → CENSUS FILE NO.

Complete this report within 20 days of receipt

and RETURN TO → **Bureau of the Census**
Jeffersonville, Indiana 47130

Please Read Instructions Before Completing Report

Item 1 – Name and address *(Please correct any errors)*

PLEASE RETURN THIS COPY

Item 2A – COMPANY OWNERSHIP AND CONTROL

Is the firm named in Item 1 owned or controlled by another domestic company?

☐ YES ☐ NO

If "YES," give name and address of owning or controlling company:

Item 2B – Does the firm named in Item 1 own or control any subsidiaries?

☐ YES – If "YES," be sure to include the required information in this report for ALL subsidiaries.

☐ NO – If "NO," report only for firm named in Item 1.

Item 3A – COMPANY ORGANIZATION – Listed in column (a) are the Employer Identification Numbers assigned to the firm named in Item 1 and to the subsidiaries it owns or controls, based on our records. Please BRING THIS LIST UP TO DATE by additions, corrections, and deletions. In column (b), enter name and address of main office or principal place of business for each Employer Identification Number. Be sure to include ALL E.I. numbers assigned, both active and inactive. IF MORE SPACE IS NEEDED FOR ADDITIONAL E.I. NUMBERS, USE ITEM 3B ON REVERSE SIDE.

Employer Identification Number (a)	Name and address of main office or principal place of business *(For E.I. numbers you DELETE, please explain)* (b)

Item 4A – LISTING OF YOUR DOMESTIC ESTABLISHMENTS (based on our records) – Please bring this list up to date by **deleting** establishments not operated by this firm or its subsidiaries in 1967; **correcting** establishment names, addresses (should be PHYSICAL LOCATIONS), and E.I. numbers, as necessary; and **listing** in Item 4B on the REVERSE SIDE all **additional** establishments now in operation or expected to be in operation at any time during 1967.

Line No.	Establishment NAME, ADDRESS of **physical** location, and Employer Identification Number (E.I.) (a)	CORRECTIONS AND REMARKS *(Enter ZIP code of physical location, if known)* (b)	Census establishment file number and codes (c)
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		
	Employer Identification No. →		

PLEASE COMPLETE REVERSE SIDE OF THIS REPORT, INCLUDING "CERTIFICATION"

Item 3B – COMPANY ORGANIZATION – Your listing of ALL additional Employer Identification Numbers not listed in Item 3A and currently assigned to your firm and its subsidiaries (both active and inactive). *If additional spaces are needed, please use a sheet of paper labeled "Item 3, Continuation Sheet," identify with your name, address, and Census File Number, and attach to this report.*

Employer Identification Number (a)	Name and address of main office or principal place of business (b)

ITEM 4B – YOUR LISTING OF ADDITIONAL DOMESTIC ESTABLISHMENTS – List below ALL domestic establishments of your firm and its subsidiaries not listed in Item 4A. Include those acquired by you through purchase, lease, construction, or other methods of acquisition; include those now in operation or expected to be in operation at any time during 1967. (For manufacturing and minerals additions, report former owner or operator, if any.) Each additional establishment should be listed on a SEPARATE LINE. *(For exceptions, PLEASE READ INSTRUCTIONS.)*

Establishment NAME, (your store or plant number, if any) ADDRESS of physical location, and Employer Identification Number (E.I.) *(Enter ZIP code of physical location, if known)* (a)	Kind of business activity: Major activity of establishment *Mark (X) one* (b)	Kind of business activity: List in order of importance the principal products made, lines of merchandise sold, types of services rendered, or construction activity performed. (c)	Approximate number of employees *Mark (X) one* (d)	FOR CENSUS USE (e)
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* –	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	

Item 5 – CERTIFICATION	Name of person to contact regarding this report	Address *(Number, street, city, State, ZIP code)*	Telephone: Area code	Number	Ext.	Number of continuation sheets returned with this report: Item 3	Item 4
Please COMPLETE form before signing.	This report *(including attached continuation pages)* is substantially accurate and has been prepared in accordance with instructions.						
	Signature of authorized person	Title	Date				

DUE DATE: 20 DAYS AFTER RECEIPT

Budget Bureau No. 41-66141; Approval Expires December 31, 1967

FORM NC-X1B
(7-13-66)
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1967 REPORT OF COMPANY ORGANIZATION

Complete this report within 20 days of receipt and return to:

Bureau of the Census
Jeffersonville, Indiana 47130

NOTICE – Response to this inquiry is required by law (Title 13 U.S. Code). By the same law your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

EMPLOYER IDENTIFICATION NUMBER ——→

Item 1 – Is this name and address of your firm CORRECT? ——→

☐ Yes ☐ No

If "No," please correct any errors.

PLEASE RETURN THIS COPY

Item 2 – Is the Employer Identification Number printed above the SAME as that appearing on your latest Quarterly Federal Tax Return, Form 941?

☐ Yes ☐ No – If "No," please enter the currently assigned Employer Identification Number here. ——→

E. I. Number

Item 3 – Does this firm (designated by the currently assigned E.I. Number shown above) operate at MORE THAN ONE business location?

☐ Yes – If "Yes," **complete** Items 4A and 4B

☐ No – If "No," **skip** to Item 5

Number

Item 4A – How many establishments are operated by this firm? . . . . .

Item 4B – Please LIST each of these establishments on the REVERSE SIDE of this report in Item 4B.

Item 5 – Does this firm own or control any companies using any OTHER Employer Identification Numbers?

☐ Yes – If "Yes," please list below ☐ No

Employer Identification Number	Name and address of main office or principal place of business

Item 6 – Is this firm owned or controlled by ANOTHER company?

☐ Yes – If "Yes," please identify below ☐ No

Employer Identification No. (if known)	Name and address of controlling company

Item 7 – CERTIFICATION – Please COMPLETE the report, including REVERSE SIDE (if applicable), before signing.

Name of person to contact regarding this report	Address *(Number, street, city, State, ZIP code)*	Telephone		
		Area code	Number	Ext.

This report is substantially accurate and has been prepared in accordance with instructions.

Signature of authorized person	Title	Date

If Item 3 is "Yes," be sure to complete REVERSE SIDE of this report ——→

Item 4B – Please list below ALL domestic establishments operated under your firm's currently assigned Employer Identification Number. Include each establishment now in operation or expected to be in operation at any time during 1967. *(If additional space is needed to list all your establishments, please use blank continuation sheets and follow the format on this page. Be sure to enter the Employer Identification Number in the upper right-hand corner of each additional sheet.)*

Establishment NAME, ADDRESS of physical location, and Employer Identification Number (E.I.) *(Enter ZIP code of physical location, if known)* (a)	Kind of business activity: Major activity of establishment *Mark (X) one* (b)	Kind of business activity: List in order of importance the principal products made, lines of merchandise sold, types of services rendered, or construction activity performed (c)	Approximate number of employees *Mark (X) one* (d)	FOR CENSUS USE
Enter Employer Identification Number *(9 digits)* → __ – _____	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* → __ – _____	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* → __ – _____	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	
Enter Employer Identification Number *(9 digits)* → __ – _____	☐ Manufacturing ☐ Construction ☐ Minerals extraction ☐ Retail trade ☐ Wholesale trade ☐ Manufacturers sales branch or office ☐ Administrative office ☐ Other – *Specify* →		2 ☐ Under 10 3 ☐ 10–19 4 ☐ 20–49 5 ☐ 50–99 6 ☐ 100 or more	

Item 4C – Do the establishments listed above (and on continuation sheets, if any) EQUAL the number of establishments indicated in Item 4A?
☐ YES ☐ NO – If "NO," please explain →

FORM NC-X1B

3-5

PENALTY FOR FAILURE TO REPORT — DATE DUE: APRIL 30, 1968 — Form Approved: Budget Bureau No. 41-S67110

FORM NC-X3 (0300) — U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

1967 CENSUSES OF BUSINESS, MANUFACTURES, AND MINERAL INDUSTRIES

GENERAL SCHEDULE

NOTICE – Response to this inquiry is required by law (Title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report, please refer to this Census File Number ↙ — Employer Identification No. ↙

NC-X3 (0300)

Return to: Jeffersonville Census Operations Office, Jeffersonville, Indiana 47130

(Please correct if name or address has changed)

INTRODUCTORY NOTE

The Bureau of the Census is now conducting a census of establishments primarily engaged in the types of activities described in item 9 (on the reverse side). However, our records do not contain sufficient information on the kind of business or activity carried on at your establishment. Please complete item 1, Parts A and B below, to provide this information. Then proceed according to the instructions given in Part C (i.e., if you are primarily engaged in one of the business activities described in Part B, boxes 1–29, you are required to complete only item 1, sign the certification in item 12, and return the form in the envelope provided; otherwise, you are required to complete the entire form).

GENERAL INSTRUCTIONS

If you operated more than one establishment (or location) under the same Employer Identification Number shown in the address box, this report should include consolidated figures for all locations; in item 11, however, please provide information separately for each location. If your Employer Identification Number was changed from that appearing in the address label, enter the currently assigned Employer Identification Number for this establishment in item 3.

Information provided by you on this report should account for your business activities for the entire year 1967. If book figures are not available, enter your best estimates.

1. KIND OF BUSINESS

Part A – Describe your kind of business or activity during 1967.

_____

Part B – Mark the box or boxes which best describe the kind of business or activity in which you were **primarily engaged** during 1967.

Agriculture, forestry, fishery

1 ☐ Farm or ranch
2 ☐ Agricultural, horticultural services (e.g., cotton ginning; corn shelling; contract grading fruits, vegetables)
3 ☐ Poultry hatchery
4 ☐ Veterinarian; animal hospital
5 ☐ Forestry (e.g., timber tracts, forest nursery)
6 ☐ Fishery

Transportation (Do not mark box if business is a travel agency, bus line, public warehouse, or trucking firm.)

7 ☐ Railroad
8 ☐ Taxicab
9 ☐ Water transportation
10 ☐ Air transportation
11 ☐ Pipeline

Communication

12 ☐ Telephone or telegraph service
13 ☐ Radio or television broadcasting

14 ☐ **Electric, gas, sanitary services**

Finance, insurance, real estate

15 ☐ Finance (bank; credit agency; security dealer, exchange)
16 ☐ Insurance
17 ☐ Real estate (except hotel operation, land subdividers and developers, and operative builders)

18 ☐ **Medical and other health service** – doctor, dentist hospital, etc. (**except** dental laboratory)

19 ☐ **Educational service (except** barber, beauty, dancing school)

Nonprofit membership organization

20 ☐ Trade association, board of trade, chamber of commerce
21 ☐ Professional membership organization
22 ☐ Labor union
23 ☐ Civic, social, fraternal association
24 ☐ Political organization
25 ☐ Religious organization
26 ☐ Charitable organization

Miscellaneous services

27 ☐ Accounting, auditing, bookkeeping
28 ☐ Artist, writer, lecturer
29 ☐ Government organization

30 ☐ **Other kind of business or activity**

Part C – **Is the kind of business or activity in which this establishment was PRIMARILY ENGAGED in 1967 described in boxes 1–29 above?**

(1) ☐ Yes (2) ☐ No

If "No," answer all remaining questions on this form. If "Yes," you need not answer the remaining questions, but complete the certification (item 12 on reverse side) and return this form in the envelope provided.

2. NAME AND PHYSICAL LOCATION

a. Is the name shown in the label the name by which this establishment is known to the public?

☐ Yes ☐ No (If "No," enter trade name above the label.)

b. Is the address in the label –

(1) ☐ The mail address of your establishment but **not** the actual physical location.
(2) ☐ The mail address of your establishment (including number and street) which also is its actual physical location.
(3) ☐ Neither of the above (e.g., accountant's office).

(NOTE: If you marked box 1 or 3, or number and street are not shown in the label, complete c, d, and e below. If you marked box 2, complete d and e below.)

c. Enter following physical location information

Number and street	City, village, or other place
State	**ZIP code**

(NOTE: If location cannot be described by number and street, give name or number of highway and approximate distance from nearest town.)

d. Enter name of county in which your establishment is located _____

e. Is your establishment physically located within the boundaries of the city, village, or other place specified in the label or in "c"?

1 ☐ Yes 2 ☐ No

3. EMPLOYER IDENTIFICATION NUMBER

Is the Employer Identification (EI) Number printed in the address label the SAME as that used for this establishment on your latest 1967 Employer's Quarterly Tax Return, Treasury Form 941?

1 ☐ Yes 2 ☐ No (If "No," enter the currently assigned EI number here (9 digits).) _ _ – _ _ _ _ _ _

4. LEGAL FORM OF ORGANIZATION OF COMPANY OPERATING THIS ESTABLISHMENT (Mark ONE box only) X-1

1 ☐ Individual proprietor
2 ☐ Partnership
0 ☐ Corporation (Do NOT mark if any form of cooperative association)
8 ☐ Co-op (cooperative association), corporate or noncorporate
9 ☐ Other – Specify

_____

5. PERIOD OPERATED IN 1967 X-2

a. Was this establishment in business at the end of 1967?

1 ☐ Yes 2 ☐ No

(NOTE: For establishments which were inactive during December 1967 due to seasonal or part-time operations answer "Yes," unless the establishment was not owned by you at the end of the year.)

b. How many months during 1967 did you own this establishment? _____ Months X-3

6. CLASS OF CUSTOMER X-4

Mark the box which indicates the class of customer accounting for more than half of your entry in item 8a. If **no one** class accounts for more than half, indicate the approximate percentage next to each box.

1 ☐ ____ % General public (household consumers, farmers, individuals)
2 ☐ ____ % Construction and building trade contractors
3 ☐ ____ % Other business firms, government, institutions
4 ☐ ____ % Other – Specify _____

7. METHOD OF SELLING X-5

Mark only the ONE box which describes your **principal** method of selling

1 ☐ Selling at this establishment
2 ☐ Mail order (catalog selling)
3 ☐ House-to-house (direct selling)
4 ☐ Operating merchandise vending machines

Form NC-X3

8. DOLLAR VOLUME OF BUSINESS AND ANNUAL PAYROLL DURING 1967

Line a – Sales of merchandise and other receipts from customers after deducting returns, allowances, and discounts.

Include all sales of merchandise (whether or not payment was received in 1967); all other receipts from customers for services, including repair, maintenance, delivery, and installation charges; all receipts from carrying charges or other charges for credit.

Do not include income from investments; commissions from vending machine operators; receipts from sale or rental of real estate, unless you are an operative or merchant builder (item 9, box 4 below).

Do not deduct trade-in allowances from sales.

Line e – PAYROLL – Include all salaries, wages, commissions, bonuses, vacation allowances, and the value of payments in kind such as goods, lodging, food, and clothing. Include tips, gratuities, etc., received by your employees from others. Do not include payments to (or withdrawals by) owners or partners of unincorporated businesses.

	Dollars	Cents	Key
a. **Sales of merchandise and other receipts from customers**	$	XX	X-6
b. Does the entry in "a" include sales and excise taxes collected from customers?	1 ☐ Yes 2 ☐ No		X-7
c. If "No," how much did you forward to Federal, State, and local taxing agencies for such taxes?	$	XX	X-8
d. Of the amount in line "a," what percent was for products **manufactured** by you at this location?	Percent		
e. **Total annual payroll in 1967 before deductions**	$	XX	X-9*

9. KIND OF BUSINESS GROUP

1-XXXX 1-5*

Part A – Mark only the ONE box for the group in which your kind of business fits best.

1 ☐ **Mining** – Extracting or quarrying minerals (metallic and nonmetallic ores; stone, sand, gravel; oil and gas; coal; etc.) minerals exploration and development; contract mineral services

Construction

2 ☐ General contractor (buildings, roads, etc.)

3 ☐ Special trade contractor (painting, carpentry, plumbing, etc.)

4 ☐ Operative or merchant builder; land subdivider and developer

5 ☐ **Manufacturing** – Fabricating, assembling, or processing materials into new products. Also includes such activities as: apparel jobbing, machine shop repair, and miscellaneous services "for the manufacturing trade"

6 ☐ **Public warehousing and storage**

Wholesale trade – Selling merchandise to retailers; to industrial, commercial, professional, institutional users; and to government

7 ☐ Merchant wholesaler

8 ☐ Merchandise agent or broker

9 ☐ Other type of wholesaler – Specify _____

10 ☐ **Retail trade** – Selling merchandise to the general public; also, eating and drinking places, gasoline service stations

Selected services

11 ☐ Hotel, motel, tourist court, recreation camp

12 ☐ Laundry, barber shop, or other services to individuals

13 ☐ Advertising or other services to businesses

14 ☐ Repair service (autos, equipment, etc.)

15 ☐ Amusement, recreation place

16 ☐ Law firm

17 ☐ Engineering and architectural firm

18 ☐ Travel agency

19 ☐ Dental laboratory

20 ☐ Trucking firm

21 ☐ Bus line (including charter)

22 ☐ **Other kind of business** – Specify

_____

_____

Part B – Source of Receipts

List below the principal lines of merchandise sold, types of construction activity, products manufactured or mined, or services performed and indicate the approximate percentage each was of your total receipts (item 8a) in 1967.

Lines of merchandise sold, types of construction activity, types of services, and products manufactured or mined	Percentage of total receipts shown in item 8a
1.	
2.	
3.	
4.	

10. COMPANY AFFILIATION

a. ☐ **Mark this box** if this business is owned or controlled by another company and enter the name, mailing address, and Employer Identification Number of owning or controlling company, if known.

b. ☐ **Mark this box** if this business owns or controls any other company or companies and enter the name, mailing address, and Employer Identification Number of owned or controlled companies, if known.

Name of company / Mailing address – Number, street, city, State, ZIP code	E.I. Number
Name of company / Mailing address – Number, street, city, State, ZIP code	E.I. Number
Name of company / Mailing address – Number, street, city, State, ZIP code	E.I. Number

11. YOUR BUSINESS LOCATIONS

a. In 1967 did you operate more than one establishment under the Employer Identification Number shown in the address label or in item 3? . . . . . 1 ☐ Yes 2 ☐ No

b. If "Yes," list separately below each establishment, including your main establishment and auxiliary facilities (such as warehouses, central administrative offices, buying offices, etc.).

Address of business (Number, street, city, State, ZIP code)	Description of business	Census use only	Business receipts during 1967 Dollars	Business receipts during 1967 Cents	Number of paid employees (Pay period including March 12, 1967)
1.			$	XX	
2.				XX	
3.				XX	
TOTAL FOR THIS EMPLOYER IDENTIFICATION NUMBER (Sum of lines 1–3 should be same as item 8a.) →			$	XX	

12 CERTIFICATION

Name of person to contact regarding this report	Address (Number, street, city, State, ZIP code)	Telephone: Area code	Number	Extension

This report is substantially accurate and covers the period from _____ to _____

Signature of authorized person	Title	Date

Use additional sheets of paper, if necessary, to complete any item or to submit any explanation. Identify each sheet with the Census File Number appearing in the address box.

PENALTY FOR FAILURE TO REPORT — DUE DATE – APRIL 30, 1968 — Form Approved: Budget Bureau No. 41-S67110

FORM NC-X6 (0600)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1967 CENSUSES OF BUSINESS, MANUFACTURES, AND MINERAL INDUSTRIES

CENTRAL ADMINISTRATIVE OFFICE OR AUXILIARY ESTABLISHMENT

RETURN TO: JEFFERSONVILLE CENSUS OPERATIONS OFFICE
Jeffersonville, Indiana 47130

PLEASE READ INSTRUCTIONS BEFORE COMPLETING REPORT

If calander year records are not available, fiscal year reports for the periods ending between October 31, 1967 and February 29, 1968 are acceptable. If book records are not available, enter your best estimate.

This report should cover ONLY the establishment identified in the address label.

NOTICE – Response to this inquiry is required by law (Title 13 U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report please refer to this Census File Number

Employer Identification Number

NC-X6 (0600)

(PLEASE RETURN THIS COPY)

ITEM 1. NAME AND PHYSICAL LOCATION

a. Name of this establishment, if **different** from that appearing in the address box

b. Is the address originally printed in the address box the ACTUAL PHYSICAL LOCATION OF THIS ESTABLISHMENT?

☐ Yes – *Complete lines (3) and (4)* ☐ No – *Complete lines (1) through (4)*

(1) Number and street	City, village, or other place
(2) State	ZIP code

NOTE – If location cannot be described by number and street, give name or number of highway and approximate distance from nearest town.

(3) County in which your establishment is physically located? . . . . . _____

(4) Is the establishment physically located within the boundaries of the city or village? 1 ☐ Yes 2 ☐ No

ITEM 2. EMPLOYER IDENTIFICATION NUMBER

Is the Employer Identification (EI) Number printed in the address label the SAME as that used for this establishment on your latest 1967 Employer's Quarterly Federal Tax Return, Treasury Form 941?

☐ Yes ☐ No – (If "No," please enter the currently assigned EI Number here (9 digits) → _ _ - _ _ _ _ _ _ _

ITEM 3. LEGAL FORM OF OWNERSHIP OF COMPANY OPERATING THIS ESTABLISHMENT — X-1

1 ☐ Individual proprietor
2 ☐ Partnership
0 ☐ Corporation (Do **not** mark if any form of cooperative association)
8 ☐ Co-op (cooperative association), corporate or noncorporate
9 ☐ Other *(Specify)* _____

ITEM 4. PRINCIPAL ACTIVITY OF THIS ESTABLISHMENT IN 1967 — X-2

Mark the ONE item that **best** describes the **principal** activity of this establishment. If none applies, mark item (i) and enter a description of your principal activity. **Mark one item only.**

a. ☐ 1 Centralized administration (i.e., supervisory functions of a central, home, general, branch, divisional or district office)

b. ☐ 1 Management and other supporting services (e.g., purchasing or buying office, accounting office, legal office, public relations office, etc.)

c. ☐ 3 Warehousing

d. ☐ 7 Chainstore warehousing (i.e., a combination of administrative and warehousing activities described in a, b, and c)

e. ☐ 2 Research, development, and testing

f. ☐ 4 Trading stamp redemption

g. ☐ 8 Selling

h. ☐ 9 Repair service

i. ☐ 9 Other *(Describe)* _____

ITEM 5. PRINCIPAL ACTIVITIES OF YOUR COMPANY SERVICED BY THIS ESTABLISHMENT IN 1967

a. Does this establishment perform the above described management, general administrative functions, or other supporting services **primarily** for establishments of **your** company (rather than for other business firms or for the general public)? — X-3

1 ☐ Yes – *Complete items 5b, c, and d* 2 ☐ No – *Skip to item 6*

b. Does this establishment perform these management and administrative functions or services for **ALL** establishments of your company? ("Your company" refers to the parent firm and all its subsidiaries under common ownership or control.) — X-4

1 ☐ Yes 2 ☐ No

c. Mark the **principal** kind of business or industrial activity of the establishments of your company that are managed or serviced by this central office or auxiliary. — X-5

1 ☐ Minerals extraction, quarrying, production, or exploration

2 ☐ Manufacturing (fabricating, assembling, or processing materials into new products; also includes publishing and printing)

3 ☐ Construction (including general contracting, subcontracting, home building, and land subdividing and developing)

4 ☐ Manufacturer sales branches or other wholesale operations

5 ☐ Retail stores

6 ☐ Other *(Describe)* _____

d. List in order of importance, the **principal** products made, lines of merchandise sold, types of services rendered, or construction activities performed by the establishments that are managed or serviced by this central office or auxiliary.

(1) _____ (3) _____

(2) _____ (4) _____

ITEM 6. PAYROLL AND EMPLOYMENT AT THIS ESTABLISHMENT DURING 1967

Report the payroll and number of persons employed at this establishment, including its traveling personnel. Do **not** include employees working in or from other establishments of your company, however, even though paid from this location. (The number and payroll of such employees should be included in the 1967 Census reports for the establishments at which they were actually employed.)

	THOUSANDS of dollars ($000)	Key
a. **Payroll** during 1967. (Enter the total wages, salaries, bonuses, commissions, and other remuneration paid to employees of this establishment during 1967, **before** payroll deductions)	$	X-6
	Number	
b. **Number of employees** at this establishment during the pay period including March 12, 1967		X-7

c. Were the employees and payroll reported in items 6a and 6b above also reported in any other 1967 Census **establishment** report form of your company (i.e., in the Census Forms MA-, MC-, CB-, or CC- series)? — X-8*

1 ☐ Yes – If "Yes," please give the 11-digit CENSUS FILE NUMBER of that report _____ 2 ☐ No

ITEM 7. EMPLOYMENT BY FUNCTION DURING THE PAY PERIOD INCLUDING MARCH 12, 1967

Distribute the number of employees reported in item 6b according to their **principal functions** at this establishment during the pay period including March 12, 1967.

Where establishment records do not provide actual employee counts in terms of the functions listed, estimates of the approximate number in each are acceptable. Those persons performing a variety of functions should be reported in their **primary** activity during that pay period, or allocated on some other reasonable and consistent basis (e.g., by converting the total number of man-hours or man-days expended during the pay period into the average number of employees in each activity).

Type of function performed	Approximate number of employees	Key
a. Centralized administration (e.g., various management functions of a general, home, or district office)		1-1
b. Research, development, and testing		1-2
c. Warehousing		1-3
d. Sales to customers directly from this location		1-4
e. Trading stamp redemption		1-5
f. Other *(Describe)*		1-6
g. TOTAL NUMBER OF EMPLOYEES (Sum of lines a through f; should equal item 6b) →		1-7*

Please continue on page 2

Report all figures in THOUSANDS OF DOLLARS ($000), except Item 15. If none applies, enter "0" or "NONE."

ITEM 8. SALES MADE BY THIS ESTABLISHMENT DURING 1967 TO CUSTOMERS OUTSIDE YOUR COMPANY

a. Report all sales made by this establishment during 1967 (merchandise sales, receipts for services, and other business receipts) **to customers outside your company.**

Include excise taxes and sales taxes paid directly to taxing agencies.

Exclude intracompany transfers to other domestic establishments of your company; however, **include** export transfers to your foreign subsidiaries. **Exclude** sales to outside customers made by OTHER establishments of your company, even though billed centrally by this establishment. (Report such sales on the 1967 Census forms of these other establishments.)

	THOUSANDS of dollars ($000)	Key
a. Sales made by this establishment during 1967 to customers outside your company	$	2-1

b. List principal products sold or services rendered by this establishment to customers outside your company, in order of importance of sales and receipts in 1967:

(1) _____ (3) _____

(2) _____ (4) _____

ITEM 9. BILLINGS BY THIS ESTABLISHMENT IN 1967 TO RETAIL STORES OF YOUR COMPANY

Report at cost value all merchandise billed by this establishment in 1967 to retail stores of your company. **Include** all billings, whether or not the merchandise was shipped directly by the supplier to your retail stores or shipped from this establishment.

Exclude purchases made directly by your individual stores. **Exclude** billings to establishments other than your retail stores. **Exclude** sales to retail stores of other companies, and franchise sales (which should be reported in item 8a above).

	THOUSANDS of dollars ($000)	Key
Total billings by this establishment in 1967 to retail stores of your company	$	2-2

ITEM 10. INVENTORIES AT BEGINNING AND END OF 1967

Report all inventories **of this establishment** at current cost (if feasible), rather than sales price. **Exclude** inventories reported by **other** establishments of your company on their 1967 Census establishment forms.

Value of inventories of this establishment:		
a. BEGINNING of 1967	$	2-3
b. END of 1967	$	2-4

ITEM 11. CAPITAL EXPENDITURES FOR THIS ESTABLISHMENT DURING 1967 (EXCLUDE LAND AND MINERAL RIGHTS)

Report all capital expenditures actually made during 1967 for this establishment, including major alterations, capitalized repairs and improvements. "Capital expenditures" refer to all costs that are chargeable to fixed assets accounts for which depreciation or amortization accounts are ordinarily maintained.

Include the cost of all improvements and new construction at this establishment which were in progress but had not been completed at the end of 1967.

Include expenditures made by your company (or any of its subsidiaries) for structures which, upon completion, were or are to be sold and leased back to this establishment.

Exclude the cost of land and mineral rights.

Exclude the cost of maintenance and repairs charged as current operating expense.

Exclude capital expenditures made by outside owners of property rented or leased to this establishment. **Exclude** capital expenditures made by this establishment for other locations of your company.

Type of capital expenditures:		
a. New structures and additions to plant	$	2-5
b. New machinery and new equipment	$	2-6
c. Used plant and used equipment acquired from others	$	2-7
d. **TOTAL CAPITAL EXPENDITURES DURING 1967** (Sum of lines a, b, and c) →	$	2-8*

ITEM 12. CHANGES IN GROSS (BOOK) VALUE OF FIXED ASSETS OF THIS ESTABLISHMENT DURING 1967

Report the changes in gross (book) value of fixed assets **of this establishment** for which depreciation and amortization accounts are ordinarily maintained. "Gross (book) value" represents the acquisition cost (original cost or other basis) to your company of such fixed assets.

Include all depreciable fixed assets (buildings, structures, machinery, equipment, etc.), and all amortizable fixed assets.

Include all improvements and new construction "in progress" during 1967 but not yet completed at the end of 1967. Also **include** the value of fixed assets owned by this establishment but leased or rented to other companies.

Include the value of fixed assets owned by your company or any of its subsidiaries but "leased" to this establishment.

Exclude the value or fixed assets of other locations of your company (or any of its subsidiaries) for which this establishment maintains records.

a. Gross (book) value of fixed assets at BEGINNING of 1967	$	3-1
b. Total capital expenditures during 1967 (Copy figure from item 11d)	$	3-2
c. Gross (book) value of fixed assets sold, retired, scrapped, or destroyed during 1967	$	3-3
d. Gross (book) value of fixed assets, at END of 1967. (**Should equal** lines a + b − c. If not, please comment in "Remarks.") →	$	3-4

ITEM 13. RENTAL PAYMENTS MADE FOR THIS ESTABLISHMENT DURING 1967 (EXCLUDE LAND)

Report all rental payments made or accrued during 1967 to OUTSIDE firms which own the plant and equipment rented or leased by **this** establishment. **Exclude** rental payments made by this establishment to your parent company or any of its subsidiaries. (The value of such company-owned assets should be reported in item 12, however, as if actually owned by this establishment.) **Exclude** rental payments made by this establishment for plant and equipment located at other establishments of your company.

In reporting rents paid (or equivalent charges) for use of "Buildings and structures," **exclude** separately identified fees for leasing of land (such as ground rents).

Under "Machinery and equipment," be sure to **include** rental payments, (or equivalent charges), for use of transportation equipment, office equipment, computer systems, passenger cars, and all other types of machinery or equipment.

Rental payments made for this establishment:		
a. For use of BUILDINGS AND STRUCTURES (excluding land)	$	3-5
b. For use of MACHINERY AND EQUIPMENT	$	3-6
c. **TOTAL RENTAL PAYMENTS** (Sum of lines a and b) →	$	3-7

ITEM 14. COST OF RESEARCH AND DEVELOPMENT PERFORMED AT THIS ESTABLISHMENT DURING 1967

"Cost" should **include** all costs incurred at this establishment during 1967 to support research and development activities (i.e. wages and salaries; direct materials costs; services and supporting costs; and an appropriate share of depreciation and overhead). If this establishment performed research and development for other companies on contract during 1967, **include** the total amount charged for such work performed. (Also, report such receipts in item 8 above.)

Type of research and development performed:		
a. Federal contracts and subcontracts	$	3-8
b. Other research and development initiated with funds of your company or other (non-Federal) sources	$	3-9
c. **TOTAL COST OF RESEARCH AND DEVELOPMENT DURING 1967** (Sum of lines a and b) →	$	3-10*

ITEM 15. WAREHOUSE STORAGE SPACE, AS OF DECEMBER 31, 1967

If you reported any employees in item 7, line c, "Warehousing," complete this item.

Line a. Exclude floor space occupied by interior walls, permanent aisles, elevator shafts, stairways, offices, receiving and shipping platforms, etc.

Line b. Net piling space is space for storing commodities – inside space measured from wall to wall and from floor to ceiling, less space for ventilation (outside of the pilings), coils, aisles, posts, sprinklers, etc.

a. Occupiable floor space (under roof) – occupied and unoccupied – of this establishment	Square feet	4-1
b. Refrigerated (net piling) space, 50 degrees Fahrenheit or below, in this establishment	Cubic feet	4-2*

REMARKS

ITEM 16. CERTIFICATION

Name of person to contact regarding this report	Address *(Number and street, city, State)*	*ZIP code*	Telephone: Area code	Number	Extension

This report is substantially accurate and covers the period from _____ to _____

Signature of authorized person	Title	Date

PENALTY FOR FAILURE TO REPORT — DUE DATE—APRIL 30, 1968 — Form approved; Budget Bureau No. 41-S67100

FORM NC-K1 (9991)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1967 CENSUSES OF BUSINESS, MANUFACTURES, AND MINERAL INDUSTRIES

COMPANY SUMMARY REPORT

NOTICE – Response to this inquiry is required by law (Title 13 U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report please refer to → CENSUS FILE NO.

Name and address *(Please correct any errors)*

RETURN TO JEFFERSONVILLE CENSUS OPERATIONS OFFICE
Jeffersonville, Indiana 47130

Please read instructions before completing report

INSTRUCTIONS

This form will provide you and the Bureau of the Census with a systematic means for assuring that ALL DOMESTIC ACTIVITIES of your company and its subsidiaries have been accounted for in the 1967 Censuses of Business, Manufactures, and Mineral Industries. For the purposes of this report, "domestic" activities should include all 50 States and the District of Columbia. It should **not** include activities of your firm in foreign countries. (Note – Your Puerto Rico activities, if any, will be covered separately in the 1967 Census of Puerto Rico conducted jointly by the Commonwealth government and the U.S. Bureau of the Census.)

Please complete Form NC-K1, "Company Summary Report," **after** you have prepared all required 1967 Census establishment reports for your company and its subsidiaries, but **before** you return these completed reports to the Bureau of the Census. Preparing this Company Summary Report **prior** to returning the completed establishment reports may help you to discover more readily and to correct promptly any **omission** or **duplication** of reports for those establishments which should be covered in the 1967 Censuses of Business, Manufactures and Mineral Industries. In turn, this will speed up the Census Bureau's processing of your company report forms and will minimize any correspondence regarding coverage.

ITEM 1. GENERAL INFORMATION

A. NAME OF COMPANY

B. COMPANY ORGANIZATION
Is the above-named company owned or controlled by another company? ..... Yes ☐ No ☐
(If "Yes," please give name and address of owning or controlling company.)

C. LEGAL FORM OF OWNERSHIP OF COMPANY – *Mark one* X-1

1 ☐ Individual proprietor
2 ☐ Partnership
0 ☐ Corporation (Do **not** mark if any form of cooperative association.)
8 ☐ Co-op (Cooperative association), corporate or noncorporate
9 ☐ Other *(Specify)*

ITEM 2. EMPLOYMENT SUMMARY OF YOUR COMPANY AND ITS SUBSIDIARIES DURING 1967

– Column (a) lists the Employer Identification (E.I.) Numbers assigned to your company, based on information you reported on the 1967 Census Form NC-X1, "Report of Company Organization." If your company was assigned any other E.I. Numbers during any part of 1967, please add these numbers to the list. Then, complete ALL columns for EACH E.I. Number listed. (USE ITEM 2 Continuation Sheet if necessary.)

NOTE: All employment figures (Columns b through f) are for the pay period including MARCH 12, 1967

Line number	Employer Identification Numbers used by your company during 1967 (a) 1-1	Number of employees (as of March 12, 1967) reported on Treasury Payroll Tax Forms 941, 943, or CT-1 (b) 1-2	**Employees** in domestic establishments, as REPORTED on your 1967 Censuses of Business, Manufactures, and Mineral Industries forms: Census Form MA– or MC–Series *Production workers plus all others* (Manufactures and Mineral Industries) (c)	Census Form CB– or CC–Series (Wholesale, Retail, Service, and Construction) (d)	Census Form NC–X6 (Central adminstrative offices and auxiliaries) (e)	**Employees** and **payroll** of domestic business activities, NOT REPORTED on your 1967 Censuses of Business, Manufactures, and Mineral Industries forms (i.e., agriculture; railroads; pipelines; radio and TV stations; insurance agencies; banks; etc.): Employees in domestic activities NOT REPORTED on your Census forms (f) 1-3	Description of these activities NOT REPORTED on your Census forms (g)	Total payroll for the **year 1967** for these activities NOT REPORTED on your Census forms *THOUSANDS of dollars ($000)* (h) 1-4	For Census Use Only Key 1-5*
1								$	001
2								$	002
3								$	003
4								$	004
5								$	005
6								$	006
7								$	007
8								$	008
9	Subtotal from Item 2 Continuation Sheet, if any								
10	TOTAL, All Employer Identification Numbers →								

NUMBER OF ITEM 2 CONTINUATION SHEETS ATTACHED TO THIS FORM → No. of sheets

ITEM 3. COVERAGE CHECK OF COMPANY EMPLOYMENT TOTALS

A. **Comparison of COMPANY employment with ESTABLISHMENT employment for the pay period including March 12, 1967**

Enter employment totals from **Item 2, Line 10:**

	Number of employees reported in Item 2, line 10, above	Key
(1) From Column (c), total		2-1
(2) From Column (d), total		2-2
(3) From Column (e), total		2-3
(4) From Column (f), total		2-4
(5) **Sum** of figures above →		2-5
(6) Sum of company employment reported on Treasury Payroll Tax Forms (From **Column (b) in Line 10**) →		2-6

B. If the two figures in Lines (5) and (6) of Item 3A **differ by more than 5 percent**, please verify the reported figures in Item 2. (For **each** Employer Identification Number, compare the Column (b) figure with the sum of Columns (c), (d), (e), and (f). These totals should ordinarily be equal for each E.I. Number, if all employment has been accounted for.)

If, after such verification, a company-wide difference in excess of 5 percent still exists, please explain:

For Census Use Only 2-7 2-8 2-9*

Please continue on page 2

ITEMS 4–10. SELECTED COMPANY STATISTICS FOR 1967

Please report the following items on a **consolidated** basis for the DOMESTIC ACTIVITIES of your company and ALL its subsidiaries as defined in Item 2 of this report. Do **not** include foreign activities, if any, (**except** for reporting foreign assets in Item 10). **Consolidate all domestic activities**, whether or not covered in the 1967 Census by individual report forms. If calendar year records are not available, fiscal year reports for the periods ending between October 31, 1967 and February 29, 1968 are acceptable. If book records are not available, enter your best estimates. **Before completing these items, please read the detailed instructions.**

ITEM 4. COMPANY PAYROLL DURING 1967

Report total wages, salaries, bonuses, commissions, and other remuneration paid by your company and its subsidiaries at domestic establishments and facilities during 1967, **before** payroll deductions.

	Thousands of dollars ($000)	Key
Total company payroll during 1967	$	3-1

ITEM 5. COMPANY SALES AND RECEIPTS DURING 1967

Report consolidated net sales and business receipts of your company and its subsidiaries during 1967.

Exclude domestic intra-company transfers; **exclude** sales BY foreign subsidiaries; **exclude** non-operating income. **Include** sales to customers OUTSIDE your company; **include** excise taxes and sales taxes paid by your company directly to Federal, State, or local taxing agencies; **include** export transfers TO your foreign subsidiaries.

		Key
a. Net company sales and business receipts during 1967	$	3-2
b. Does the entry in 5a above INCLUDE excise and sales taxes paid directly to taxing agencies?	Yes ☐ 1 No ☐ 2	3-3
c. If "No," report here the amount of such taxes paid by your company and its subsidiaries during 1967	$	3-4

ITEM 6. CAPITAL EXPENDITURES DURING 1967 (EXCLUDE LAND AND MINERAL RIGHTS)

Report all capital expenditures actually made during 1967 by your company and its subsidiaries for all domestic establishments and facilities. "Capital expenditures" refer to all costs that are chargeable to fixed assets accounts of your company for which depreciation or amortization accounts are ordinarily maintained; **include** major alterations, capitalized repairs and improvements; **include** expenditures made in 1967 for establishments under construction but not yet in operation.

Exclude capital expenditures made by owners of property rented or leased by your firm and its subsidiaries; but **include** expenditures made by your firm and its subsidiaries for structures which, on completion, were or are to be sold and leased back by your firm. **Exclude** cost of land, mineral rights, and cost of maintenance and repair charged as current and operating expenses; **exclude** capital expenditures by subsidiaries in foreign countries.

Type of capital expenditures:		Key
a. New structure and additions to plant	$	3-5
b. New machinery and new equipment	$	3-6
c. Used plant, machinery, and equipment acquired from others	$	3-7
d. Capitalized development and exploration of mineral properties	$	3-8
e. **TOTAL CAPITAL EXPENDITURES DURING 1967** (Sum of Lines a, b, c, and d) →	$	3-9*

ITEM 7. CHANGES IN FIXED ASSETS DURING 1967

Report the value of fixed assets of your company and its subsidiaries for which depreciation and amortization accounts are ordinarily maintained. "Gross (book) value" represents the acquisition cost (original cost or other basis) to your company of such fixed assets. "Net value" represents the gross value of such fixed assets, **less** their accumulated depreciation and amortization.

Include fixed assets for **all** domestic establishments and facilities.

Exclude fixed assets of your company and its subsidiaries in foreign countries. These assets should be reported in Item 10c below.

Include all depreciable assets (buildings, structures, equipment, etc.) and amortizable fixed assets.

Exclude depletable assets (land, timber, and mineral rights) and non-fixed assets (inventories, cash, accounts receivable, etc.). These assets should be reported in Item 10b below.

Include in the value of assets all improvements and new construction that were "in-progress" but not yet completed at the end of 1967. Also **include** the value of fixed assets (machinery, equipment, buildings, structures, etc.) owned by your company and its subsidiaries but leased or rented to other companies.

		Key
a. Gross (book) value of fixed assets owned by your company, as of BEGINNING of 1967	$	4-1
b. Net value of fixed assets, as of BEGINNING of 1967 (i.e., gross value, **less** accumulated depreciation and amortization)	$	4-2
c. Total capital expenditures DURING 1967 (copy figure from Item 6e)	$	4-3
d. Other acquisitions by your company (by merger, exchange of stock, etc.) of fixed assets DURING 1967 (if **not** included in Line c above)	$	4-4
e. Depreciation and amortization charges against fixed assets DURING 1967 (**including** charges against those acquired or completed during the year)	$	4-5
f. Other deductions from fixed assets DURING 1967 (i.e., net value of assets sold, retired, scrapped, or destroyed; and other adjustments)	$	4-6
g. Net value of fixed assets, as of END of 1967. (**Should equal** Lines b + c + d − e − f. If not, please comment in "Remarks.") →	$	4-7*

ITEM 8. RENTAL PAYMENTS MADE DURING 1967 (EXCLUDE LAND)

Report all rental payments made or accrued during 1967 to other firms which own the plant and equipment rented or leased by your company and its subsidiaries.

In reporting rents paid (or equivalent charges) for use of "Buildings and structures," **exclude** separately identified fees for leasing of land (such as ground rents).

Under "Machinery and equipment," be sure to **include** rental payments (or equivalent charges) for use of production machinery, office equipment, computer systems, passenger cars, trucks, materials handling equipment, and all other types of machinery or equipment.

Rental payments made by your company:		Key
a. For use of BUILDING AND STRUCTURES (excluding land)	$	5-1
b. For use of MACHINERY AND EQUIPMENT	$	5-2
c. **TOTAL RENTAL PAYMENTS DURING 1967** (Sum of Lines a and b) →	$	5-3

ITEM 9. INVENTORIES, AS OF BEGINNING AND END OF 1967

Report all inventories of your company and its subsidiaries at the beginning and end of 1967 on a comparable basis.

Inventories should **include**: finished products; work-in-process; and materials, supplies, fuels, etc. **Exclude** inventories of subsidiaries in foreign countries.

In aggregating the inventories of your company and its subsidiaries, report value on a **current cost basis**, if feasible, otherwise at book value.

Value of inventories:		Key
a. All inventories, as of BEGINNING of 1967	$	5-4
b. All inventories, as of END of 1967	$	5-5

ITEM 10. TOTAL COMPANY ASSETS, AS OF END OF 1967

Report the balance sheet assets of your company and its subsidiaries on a **consolidated** basis.

Lines a and b should include **only domestic** assets of your company and its subsidiaries.

Line c should include all assets of your company and its subsidiaries in **foreign** countries, regardless of type.

Type of company assets:		Key
a. Net value of fixed assets (From Item 7, line g)	$	5-6
b. All other **domestic** assets (i.e., inventories, cash, accounts receivable, land, etc.)	$	5-7
c. All **foreign** assets (i.e., assets located in foreign countries)	$	5-8
d. **TOTAL COMPANY ASSETS, AS OF END OF 1967** (Sum of Lines a, b, and c) →	$	5-9*

REMARKS

ITEM 11.

Name of person to contact regarding this report	Address *(Number and street, city, State)*	*ZIP code*	Telephone: Area code	Number	Ext.

CERTIFICATION

This report is substantially accurate and covers the period from _____ to _____

Signature of authorized person	Title	Date

PENALTY FOR FAILURE TO REPORT | DATE DUE: APRIL 30, 1968 | Form Approved: Budget Bureau No. 41-567067

FORM NC-K13 (9913) | U.S. DEPARTMENT OF COMMERCE BUREAU OF THE CENSUS

NOTICE – Response to this inquiry is required by law (Title 13 U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

1967 CENSUS OF MINERAL INDUSTRIES

COMPANY EXPLORATION EXPENDITURES AND ASSETS FOR OIL AND GAS FIELD OPERATIONS

In correspondence pertaining to this report refer to this Census File Number

NC-K13 (9913)

RETURN TO JEFFERSONVILLE CENSUS OPERATIONS OFFICE
Jeffersonville, Indiana 47130

KEEP THIS COPY FOR YOUR FILES

PLEASE COMPLETE AND RETURN THE FORM WHICH SHOWS YOUR NAME AND ADDRESS

(Please correct if mailing address has changed)

CENSUS USE ONLY

1–1		1–2		

GENERAL INSTRUCTIONS

As part of the 1967 Census of Mineral Industries, the Bureau of the Census is conducting this survey of domestic oil and gas field exploration expenditures and company assets on a **net working interest basis.** This form is designed to summarize company figures for items which are inappropriate for respondents to report on **an operator basis.**

All figures reported on this form should be on a **net working interest basis.** By contrast, figures reported on form MC-13A for oil and gas field operations represent a **company operated** basis and include data for properties operated both for own account and for others but **exclude** data for properties owned by your company but operated by others.

Include on a consolidated basis in this report data for domestic oil and gas field properties owned by all subsidiaries and divisions of your company.

If you have also received form NC-K1, "Company Summary Report," figures on that form should represent your **entire company** activities, whereas figures on this form (NC-K13) should represent **only** your oil and gas field activities. In addition, since the NC-K1 form was designed to apply to all large manufacturing, minerals, and business companies there are some differences in the definitions included on that form as compared to this one. Your report on NC-K13, of course, should exclude all data for natural gas liquids plants, pipelines, natural gas distribution systems, petroleum refineries, bulk tank stations, filling stations, or other activities of your company which should, however, be included on your form NC-K1 report.

ESTIMATES ARE ACCEPTABLE – We recognize that there is no uniform system of accounting for all companies and that reporting on this form may require that some companies use estimates. If you do not have records showing the items requested, approximate figures will be acceptable.

Section I – EXPLORATION EXPENDITURES DURING 1967 – Report charges to both the **current expense and capital accounts for 1967.**

Column (B) – Report expenditures for acquiring nonproducing acreage, including lease bonuses and any other outlays necessary to acquire leases, mineral rights, and fee lands incident to oil and gas exploration except land department, leasing, and scouting expenditures.

Column (C) – Report expenditures for lease rents and other expenditures for carrying leases, such as shut-in royalties and annual payments.

Column (D) – Report all land department, scouting, and lease acquisition expenditures except the actual outlays for purchase or land leasing reported under columns (B) and (C).

Column (E) – Report all geological and geophysical expenditures, including core drilling and other drilling where the intention is not to complete the well as a producing well.

Columns (G), (H), and (I) – Report all expenditures for 1967 (reduced by amount of outside contributions) for drilling exploratory wells including wells still drilling at the end of the year. Report payments to contractors and direct expenditures for labor, supplies, water, fuel, and power used. Include expenditures for casing, tubing, and wellhead fittings associated with exploratory wells; expenditures for roads, grading, etc.; and all other expenditures incident to exploratory drilling. Exclude material salvaged after use, but include the cost of salvaging. Exclude all expenditures for equipment beyond the Christmas tree and expenditures for all down-hole pumping and artificial lift equipment.

Column (J) – Report all contributions paid toward test wells.

Column (K) – Report all other expenditures which relate to exploration for oil and gas, including direct overhead.

Section II – GROSS BOOK VALUE OF OIL AND GAS FIELD ASSETS AT THE END OF 1967 – Report your own net working interest value before depreciation and amortization of all oil and gas assets owned, as per your books, whether operated or nonoperated, excluding the value of any assets belonging to others on property which you report. Enter the original or acquisition cost of the fixed assets on the books of this company such as mineral properties, buildings, structures, machinery, and equipment; capitalized drilling and completion costs; and other fixed assets for which depreciation, depletion, or amortization reserves are ordinarily maintained.

Under mineral properties (leasehold investment) report acquisition and capitalized development costs.

Column (B) – Report data for properties being held for later exploration and properties shut-in at the end of 1967.

Column (C) – Report data for properties which are producing at the end of 1967.

Column (D) – Report data for properties on which work is being done at the end of 1967 and which has been capitalized, but for which it is not yet possible to determine whether the properties will be productive.

Column (E) – Under buildings, other structures, and machinery, include lease tanks, lines up to delivery end of lease tanks and delivery gas meter, oil and gas field rail and other roads, and power plants. Include drilling rigs, lease equipment, motors, as well as furniture and fixtures for offices, cafeterias, change rooms, and transportation equipment. Report value of assets for all types of equipment for which capital expenditures are reported on form MC-13A under items 7b, 7c, and 7d.

Please complete page 2 before signing here

Name of person to contact regarding this report	Address *(Number and street, city, State)*	ZIP code	Telephone: Area code	Number	Extension

CERTIFICATION – This report is substantially accurate and covers the period from _____ to _____

Name of company	Address *(Number and street, city, State)*	ZIP code

Signature of authorized person	Title	Date

Please continue on reverse side

COMPANY EXPLORATION EXPENDITURES AND ASSETS – OIL AND GAS FIELD OPERATIONS

Report net working interest in thousands of dollars

Section I – EXPLORATION EXPENDITURES DURING 1967

2	2–1	2–2	2–3	2–4	2–5	2–6*	2	2–1	2–2	2–3	2–4	2–5	2–6
Geographic area	Key	Total (Sum of columns (B)–(E) and (G)–(K)) (A)	Lease and land acquisitions of nonproducing acreage (B)	Lease rents (C)	Land department, leasing, and scouting (D)	Geological and geophysical (E)		Key (F)	Drilling and equipping wells: Dry (G)	Drilling and equipping wells: Successful (H)	Drilling and equipping wells: In progress (I)	Contributions paid (J)	Other (K)
Northeast [1]	1000	$	$	$	$	$		1001	$	$	$	$	$
East North Central [2]	2300							2301					
West North Central [3]	2400							2401					
South Atlantic [4]	3500							3501					
East South Central [5]	3600							3601					
West South Central Arkansas	3710							3711					
Lousiana	3720							3721					
Oklahoma	3730							3731					
Texas	3740							3741					
Mountain New Mexico	4850							4851					
Other [6]	4890							4891					
Pacific California	4930							4931					
Other [7]	4990							4991					
United States, total	5550							5551					

Section II – GROSS BOOK VALUE OF OIL AND GAS FIELD ASSETS AT END OF 1967

2	2–1	2–2	2–3	2–4	2–5	2–6
Geographic area	Key	Total (Sum of columns (B)–(E)) (A)	Mineral properties (leasehold investment): Nonproducing properties (B)	Mineral properties (leasehold investment): Producing properties (C)	Mineral properties (leasehold investment): Work in progress (D)	Buildings, other structures, and machinery (exclude land) (E)
Northeast [1]	1002	$	$	$	$	$
East North Central [2]	2302					
West North Central [3]	2402					
South Atlantic [4]	3502					
East South Central [5]	3602					
West South Central Arkansas	3712					
Lousiana	3722					
Oklahoma	3732					
Texas	3742					
Mountain New Mexico	4852					
Other [6]	4892					
Pacific California	4932					
Other [7]	4992					
United States, total	5552					

[1]Northeast – Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania.
[2]East North Central – Ohio, Indiana, Illinois, Michigan, and Wisconsin.
[3]West North Central – Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas.
[4]South Atlantic – Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida.
[5]East South Central – Kentucky, Tennessee, Alabama, and Mississippi.
[6]Mountain, Other – Montana, Idaho, Wyoming, Colorado, Arizona, Utah, and Nevada.
[7]Pacific, Other – Washington, Oregon, Alaska, and Hawaii.

Remarks

PENALTIES FOR FAILURE TO REPORT — DUE DATE – APRIL 30, 1968 — Form Approved: Budget Bureau No. 41-S67067

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1967 CENSUS OF MINERAL INDUSTRIES

IND-D | V
TAB | 1
IND-T | 2
AREA | 3
| 4
INFL | 5
CCS | 6
PPN | 7

NOTICE – Response to this inquiry is required by law (Title 13 U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report refer to this Census File Number

Employer Identification Number

RETURN TO JEFFERSONVILLE CENSUS OPERATIONS OFFICE
Jeffersonville, Indiana 47130

ITEM 1 Physical location and Employer Identification Number — Complete both a and b.

a. Is the address originally printed in the address box the ACTUAL PHYSICAL LOCATION of this establishment?
☐ Yes – Complete lines (3), and item 1B.
☐ No – Complete lines (1) through (3) and item 1B.

(1) Number and street | City, village, or other place
(2) State | ZIP code
(3) County in which your establishment is physically located

NOTE – If location cannot be described by number and street give name or number of highway and approximate distance from nearest town.

(Please correct if mailing address has changed)

b. Is the Employer Identification (E.I.) Number printed in the address box the SAME as that used for this establishment on your latest 1967 Employer's Quarterly Federal Tax Return, Treasury Form 941? (9 digits)
☐ Yes ☐ No – If "No," enter currently assigned E.I. No. here _ _ – _ _ _ _ _ _ _

Be sure to read Instruction Manual before completing report. Report items 3 – 11 in **thousands** (Example: If total payroll is $215,166, enter $215.)

Complete each item, enter "0" when appropriate		a	b 1967	Key
ITEM 2 Number of Employees	Production, development, and exploration workers during pay period including 12th of month: a. March			0-1
	b. May			0-2
	c. August			0-3
	d. November			0-4
	e. Sum of lines a – d →			0-5
	f. Average number (divide line e by 4, omit fractions)			0-6
	g. All other employees (pay period including March 12th)			0-7
	h. TOTAL (Sum of lines f and g) →			0-8*
ITEM 3A Payrolls ($000)	a. Production, development, and exploration workers wages			1-1
	b. All other salaries and wages			1-2
	c. TOTAL (Sum of lines a and b) →			1-3
ITEM 3B Suppl. labor costs not incl. in payrolls ($000)	a. Legally required expenditures, incl. Social Security contributions			V-8
	b. Payments for voluntary programs			V-9
	c. TOTAL (Sum of lines a and b) →			V-10
ITEM 4 Man-hours of production, development, & exploration workers by quarter (000)	a. January through March			1-4
	b. April through June			1-5
	c. July through September			1-6
	d. October through December			1-7
	e. TOTAL (Sum of a-d, same as Item 19)			1-8*
ITEM 5 Cost of supplies, etc. ($000) Line 5a should equal total of item 17A. Line 5c should equal total of item 17B.	a. Supplies used, minerals rec'd for preparation, & purch. machinery			2-1
	b. Products bought and resold without further processing			2-2
	c. Purchased fuels consumed			2-3
	d. Purchased electricity			2-4
	e. Contract work done for you by others			2-5
	f. TOTAL (Sum of lines a – e) →			2-6*

Complete each item, enter "0" when appropriate		a	b 1967	Key
ITEM 6 Mineral rights and geological expenditures ($000)	a. Lease & land acquisitions of nonproducing acreage			3-1
	b. Geological & geophysical			3-2
	c. Lease rents			3-3
	d. TOTAL (Sum of lines a – c)			3-4
ITEM 7 Capital expenditures during year, except land and mineral rights ($000)	a. Mineral development and exploration			3-5*
	b. New structures and additions			4-1
	c. New machinery and equipment			4-2
	d. Used plant and equipment			4-3
	e. TOTAL (Sum of lines a – d)			4-4
ITEM 8 Quantity of electricity (Thousands of KWH)	a. Purchased electricity (Cost is reported in 5d)			4-5
	b. Generated electricity (gross less generating station use)			4-6
	c. Electricity sold or transferred to other establishments			4-7
ITEM 10 Gross book value fixed assets (original cost, end of year) ($000)	a. Mineral properties			5-1
	b. Buildings and other structures (exclude land)			5-2
	c. Machinery and equipment			5-3
	d. TOTAL → (Sum of lines a – c)			5-4
ITEM 11 Mineral development and exploration expenditures ($000)	a. Capitalized (same as 7a)			5-5
	b. Expensed (current acc.)			5-6
	c. TOTAL → (Sum of lines a and b)			5-7

ITEM 9 – Quantity and value of products shipped and other receipts ($000)

Product classes of this establishment. If printed descriptions are incorrect, please revise. Describe all additional products. (a)	Product class code (See Manual) (b)	Unit of quantity (c)	1967 Quantity (d)	1967 Value ($000) (e)	Quantity (f)	Value ($000) (g)
a.						
b.						
c.						
d.						
e.						
f.						
g.						
h.						
i.						
j.						
k.						
l.						
m.						5-8*
n. TOTAL VALUE OF SHIPMENTS AND RECEIPTS (Same as total of Item 18) →	770008					
1 2 3 4			1 2 3 4	X-4	1 2 3 4	X-5*

IN THIS ITEM, REPORT ONLY THE TOTAL VALUE OF SHIPMENTS AND RECEIPTS FOR THIS ESTABLISHMENT ON LINE N.

Detailed products and receipts for services for others should be reported in item 18.

Please continue on Page 2

ITEM 12 — Legal form of organization

Legal form of organization of the company which operates this establishment — (X) appropriate box. X-1

1 ☐ Individual proprietor
2 ☐ Partnership
0 ☐ Corporation — (Do not mark if any form of cooperative association)
8 ☐ Co-op (Cooperative association), corporate and noncorporate
9 ☐ Other — (Specify) _____

ITEM 13 — Changes in operator, operations, or company affiliation

a. Changes in operator or operations of this establishment since 1963 X-2

(1) ☐ No change in operator or operations
(2) ☐ Reorganized, (Describe in "Remarks," e.g., partnership change, or change in corporate status)
(3) ☐ Started exploration, development, or production operations — Date _____
(4) ☐ Leases abandoned, and plant dismantled or destroyed
(5) ☐ No exploration, development or maintenance, but still owned
Discontinued operations — Date _____
(6) ☐ Establishment purchased or leased from another company (Enter below: Name, address, and Employer Identification Number (if known) of former owner or operator and date of purchase or lease.)
(7) ☐ Establishment sold or leased to another company (Enter below: Name, address, and Employer Identification Number (if known) of new owner or operator and date of sale or lease.)

Name of company	Address (Number, street, city, State, ZIP code)	E.I. Number (9 digits) / Date

(8) If establishment was purchased or leased, indicate whether the records of the predecessor company were also acquired — 1 ☐ Yes 2 ☐ No

(9) If establishment was sold or leased indicate whether successor also acquired records — 1 ☐ Yes 2 ☐ No V-1

b. Company affiliation — Complete only if the first digit of your Census File Number (imprinted in the address box) is a zero "0." Census records indicate these companies operate only **one** establishment. (If "Yes" is marked for any line complete item 14) X-3 V-2

(1) Is this company owned or controlled by any other company? . . . . . 1 ☐ Yes 2 ☐ No
(2) Does this company own or control any other companies? . . . . . 1 ☐ Yes 2 ☐ No
(3) Does this company operate more than one establishment? . . . . . 1 ☐ Yes 2 ☐ No
(4) Did this company have any exploration or development operations not included in this report in the year? . . . 1 ☐ Yes 2 ☐ No

ITEM 14 — **a. Other companies owned or establishments operated** — Complete if item 13b (2), (3), or (4) is marked "Yes."

Name and address and Employer Identification Number	Activity (Describe, e.g., mining, manufacturing, retail, wholesale, etc., and chief products, or if nonproducing chief products expected)	Payroll and value of shipments and receipts ($000)		Are payrolls, & shipments or receipts incl. in this report? Yes	No
1 Employer Identification Number _ _ – _ _ _ _ _ _ _		Payroll		☐	☐
		Shipments and receipts			
1 Employer Identification Number _ _ – _ _ _ _ _ _ _		Payroll		☐	☐
		Shipments and receipts			
1 Employer Identification Number _ _ – _ _ _ _ _ _ _		Payroll		☐	☐
		Shipments and receipts			

b. Parent company — Complete if item 13b (1) is marked "Yes"

Name and address and Employer Identification Number	Activity	Payroll and value of shipments and receipts ($000)
2 Employer Identification Number _ _ – _ _ _ _ _ _ _		

ITEM 15 — Not applicable to this form.

Checks to assure a complete and accurate report

The Census Bureau reviews your report for omissions, inconsistencies, and unusual ratios. To save you future correspondence about these problems, please make the following checks before returning your report: (1) Review the report carefully to see that no items are omitted for the year being covered; (2) Calculate and enter figures for the four "reasonableness" checks below, and review the results; (3) Correct your report for any errors you find; explain unusual figures in "Remarks."

"Reasonableness" checks	Calculation required for each check	Figures for 1967
a. Average hourly wages per production worker	Item 3Aa (Production workers' wages) ÷ item 4e (Total man-hours)	$
b. Hours worked per year per production worker	Item 4e (Total man-hours) × 1000 ÷ item 2f (Average number of production workers)	Hrs.
c. Salaries and wages per dollar of shipments and receipts	Item 3Ac (Total payroll) ÷ item 9 (Total value of shipments and receipts)	¢
d. Cost of supplies per dollar of shipments and receipts	Item 5f (Total supplies etc. cost) ÷ item 9 (Total value of shipments and receipts)	¢

e. Is the total of Value of Shipments (item 9) plus total of Capital Expenditures (item 7e) greater than the sum of Payroll (item 3Ac) plus total Cost of Supplies, etc. (item 5f) ☐ Yes ☐ No — Explain in "Remarks."

f. Does the figure in item 9 agree with that reported in item 18 for Total Value of Shipments and Receipts? ☐ Yes ☐ No — Explain in "Remarks."

Remarks

Please continue on page 3

FORM MC-13A (1301) — U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

1967 CENSUS OF MINERAL INDUSTRIES

OIL AND GAS FIELD OPERATIONS - Continued

FILE NO.

Name of establishment (Same as address box)

Item 16 – WATER INTAKE DURING 1967 — 4-8

The total quantity of water intake (fresh and brackish, including water for flooding and water that was produced with oil) in this establishment during the entire year 1967 – (Mark one box only)

1 ☐ Under 1 million gallons
2 ☐ 1 to 9 million gallons
3 ☐ 10 to 19 million gallons
4 ☐ 20 to 99 million gallons
5 ☐ 100 million gallons or over

Item 17A – GAS PURCHASED FOR GAS LIFT AND REPRESSURING, PURCHASED MACHINERY INSTALLED, AND SUPPLIES USED DURING 1967

INSTRUCTIONS

Report delivered cost of the individual items below which were used during 1967. (For valuation, see instructions for item 5 in attached Instruction Manual.)

Report quantities in the unit of measure specified in column (B-2).

Include the cost of items marked in column (E) in "All other supplies," line 4.

Line number	Gas purchased for gas lift and repressuring, machinery installed, and supplies used (A)	7	7-1 Census material code (B-1)		Unit of measure for quantities (B-2)	7-2 Received from other establishments of this company or purchased from others: If $5,000 or more of the listed item was used — Quantity (C)	7-3 Cost, including delivery cost (freight-in) (D): Millions 000	Thousands 000	Dollars 000	7-4 If you used some but less than $5,000 worth of the listed item, enter an – (X) (E)
1	GAS PURCHASED FOR GAS LIFT AND REPRESSURING (Exclude gas reported in item 18C, lines 2 and 3.)		131305	5	Million cubic feet		$			( )
2	PURCHASED MACHINERY INSTALLED		353011	0						( )
3	SUPPLIES USED Steel mill shapes and forms (such as casing, tubing, pipe, plates, sheets, piling, drill steel bars, wire, and structural shapes)		331201	4	Short tons					( )
4	All other supplies (such as drill bits and reamers, drilling fluid materials, cement, lumber, lubricants, and water purchased) (List the three principal types of supplies included here.)		970099	8						
5	TOTAL → (Sum of lines 1-4 should be same as item 5a.)				→	→	$			

Item 17B – FUELS USED DURING 1967

Line number	Kind of fuel (Report total delivered cost, not cost per unit. Fuels received from other establishments of your company should be included at estimated market value. Include the cost of items marked in column (E) in "Other fuels," line 5. Adjust all gas volumes to a pressure base of 14.73 pounds absolute at 60° F.) (A)	7	7-1 Census code (B-1)		Unit of measure for quantities (B-2)	7-2 If $2,000 or more of the listed item was used — Quantity (C)	7-3 Cost, including delivery cost (freight-in) (D): Millions 000	Thousands 000	Dollars 000	7-4 If you used some but less than $2,000 worth of the listed item, enter an (X) (E)
1	FUELS PURCHASED OR RECEIVED Fuel oil Distillate (light) grade numbers 1, 2, 4, and light diesel fuel		291141	0	Barrels (42 gal.)		$			( )
2	Residual (heavy) grade numbers 5 and 6 and heavy diesel fuel		291151	9	Barrels (42 gal.)					( )
3	Gas - natural, manufactured, and mixed		131311	3	Million cu. ft.					( )
4	Gasoline		291111	3	Thousand gallons					( )
5	Other fuels - liquefied petroleum gas, coal, coke, wood, and other		960019	8						
6	TOTAL → (Sum of lines 1-5 should be same as item 5c.)				→	→	$			
7	FUELS PRODUCED AND USED AT THIS ESTABLISHMENT FOR POWER OR HEAT Crude petroleum, including lease condensate		131206	5	Thousand barrels					
8	Natural gas		131308	9	Million cu. ft.					

Please continue on page 4

Item 18A – Not applicable to this form.

Item 18B – PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1967

INSTRUCTIONS

DO NOT COMBINE LINES - Report separately and include all products of the establishment which were produced or physically shipped from the establishment during 1967. Report the entire output of wells operated by you and reported in item 20A, including royalty interests and subsidy payments. Include products shipped on consignment, whether or not sold at the end of 1967. Include as shipments material produced at this establishment and transferred for processing or use by your company at other establishments such as your natural gas liquids plants, pipelines, petroleum refineries, other manufacturing establishments, or separate sales branches. See Instruction Manual, section D, for method of determining transfer values.

Report total amounts received or due for oil and gas field contract work done during 1967, including receipts for supplies and equipment furnished by you incidental to this work. Do not include amounts received for work done prior to 1967.

Report quantities in the unit of measure specified in column (B-2). All crude petroleum figures are to be reported in THOUSANDS of barrels. For example, if the complete figure to be reported is 210,697 barrels, enter 211. All natural gas figures are to be reported in MILLIONS of cubic feet. For example, if the complete figure is 310,293,000 cubic feet, enter 310.

Report total values f.o.b. wells. Include in the selling value, royalty, if any, but exclude transportation charges to the purchaser or user.

Line number	Products and services (A)	B-1X Census product code (B-1)		Unit of measure for quantities (B-2)	B-3 Products at wells and services performed: Quantity (D)	B-4 Value, f.o.b. well (E): Millions 000	Thousands 000	Dollars 000
	PRODUCTS							
	Crude petroleum, including lease condensate (Report volumes corrected to 60° F.)							
1	Shipped	13120 03	5	Thousand barrels		$		
2	Used in lease operations for power, heat, or other purposes, including losses (Also report oil used for power or heat in item 17B, line 7.)	13120 06	8	Thousand barrels				
3	Lease condensate produced (Report volumes corrected to 60° F.)	13130 41	4	Thousand barrels				
	Natural gas (Adjust all volumes to a pressure base of 14.73 pounds absolute at 60° F.)							
	Shipped							
4	To distributors and transmission companies and net to natural gas liquids plants (In value include the producer's realization from all products in the gas delivered to natural gas liquids plants.)	13130 12	5	Million cu. ft.				
5	To consumers (domestic, commercial, and industrial, including own refineries	13130 22	4	Million cu. ft.				
6	Other products shipped (Specify kind and unit of measure)							
	SERVICES PERFORMED FOR OTHER ESTABLISHMENTS							
7	Geophysical exploration	13828 01	7					
8	Other exploration	13828 03	3					
9	Well surveying and well logging	13898 04	4					
10	Drilling oil, gas, dry, or service wells	13818 01	8	Thousand feet				
11	Drilling in, spudding in, and tailing in	13818 02	6	Thousand feet				
12	Reworking wells	13818 04	2	Thousand feet				
13	Building (erecting), repairing, or dismantling rigs and derricks	13898 09	3					
14	Excavating slush pits or cellars	13898 18	4					
15	Running, cutting, and pulling casing, tubes, or rods	13898 14	3					
16	Cementing wells	13898 01	0					
17	Perforating well casing	13898 03	6					
18	Acidizing and other chemical treatment of wells, excluding hydraulic fracturing	13898 02	8	Number of wells				
19	Hydraulic fracturing	13898 11	9	Number of wells				
20	Cleaning out, bailing out, or swabbing wells	13898 25	9	Number of wells				
21	Installing production equipment, such as wellhead fittings, pumps, and engines	13898 15	0					
22	Erecting, cleaning, repairing, or dismantling lease tanks	13898 27	5					
23	Oil and gas field machine shop work	35993 00	5					

Please continue on page 5

FORM MC-13A (1310) — U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

1967 CENSUS OF MINERAL INDUSTRIES

OIL AND GAS FIELD OPERATIONS - Continued

FILE NO.

Page 5

Name of establishment (Same as address box)

Item 18B – PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1967 – Continued

Line number	Products and services (A)	8	8-1XX Census product code (B-1)		8-4 Products at wells and services performed — Value, f.o.b. well (E) Millions 000	Thousands 000	Dollars 000
24	SERVICES PERFORMED FOR OTHER ESTABLISHMENTS - Continued Hauling oil and gas field supplies and equipment		95120 03	8	$		
25	Pumping wells but not operating leases		13898 35	6			
26	Other oil and gas field services (Specify kind)		13898 36	6			
27	Other services (Specify kind)						
28	RESALES Sales of products purchased and resold without further processing (Exclude oil and gas purchased for resale.) The cost of such products should be reported in item 5b.		99989 00	6			
29	TOTAL → (Sum of lines 1-28)		77000 00	8	$		

Item 18C – NATURAL GAS PRODUCTION AND DISPOSITION

For definitions of "Oil wells" and "Gas and gas condensate wells," see instructions for item 20A.

Line No.	Item (A)	9	9-1 Census code (B)		9-2 Gas production (Million cubic feet) Total (C)	9-3 Oil wells (casinghead) (D)	9-4 Gas and gas condensate wells (E)
1	Shipped (Should be the same as column (D), lines 4 and 5, item 18B.)		3301	9			
2	Used in lease operations for power, heat, or gas lift (net) (Also report gas used for power or heat in item 17B, line 8.)		3311	8			
3	Returned to underground formations for repressuring, pressure maintenance, and cycling (Exclude gas reported in item 17A, line 1.)		3313	4			
4	Increase in underground storage		3315	9			
5	Decrease in underground storage		3317	5			
6	Vented to air, burned in flares, and other losses		3318	3			
7	TOTAL DISPOSITION → (Sum of lines 1-6)		3319	2			

Item 18D – QUANTITY OF SHIPMENTS DURING 1967, BY OWNERSHIP

Line number	Description (A)	9	9-1 Code (B)	Unit of measure (C)	9-2 Total (Sum of columns (E) - (H)) (D)	9-3 Operator account: Royalty (E)	9-4 Operator account: Oil and gas production payments (F)	9-5 Operator account: Net operator accounts (G)	9-6 Account of others (H)
1	Crude petroleum, including lease condensate (Column (D) should equal item 18B, column (D), line 1.)		8912	Thousand barrels					
2	Natural gas (Column (D) should equal item 18B, column (D), sum of lines 4 and 5.)		8938	Million cubic feet					

Item 19 – MAN-HOURS OF PRODUCTION, DEVELOPMENT, AND EXPLORATION WORKERS, BY DEPARTMENT, DURING 1967

Line number	Description (A)	9	9-1 Key (B)	8326 Man-hours (C) Millions 000	Thousands 000	Hours 000
1	Operating and maintaining wells		9-2			
2	Drilling wells and rig building		9-3			
3	Exploration work (except drilling wells)		9-4			
4	Other work (Specify kind)		9-5			
5	TOTAL MAN-HOURS → (Sum of lines 1-4)		9-6			

Please continue on page 6

Item 20A – NUMBER OF WELLS OPERATED

INSTRUCTIONS

Report below the number of "oil" and "gas and gas condensate" wells operated by you in the State, district, or offshore territories designated in items 1 and 21A. Exclude all service wells and dry holes. Use the following definitions.

Oil well - Represents a well that can produce hydrocarbons existing in the reservoir in liquid form.

Gas or gas condensate well - Represents a well that can produce hydrocarbons existing initially in the gaseous phase in the reservoir.

The State regulatory classification should be used, if available; if unavailable, use a classification by company engineers.

Count multiple completions as one well. Report a multiple completion as an "oil well" if oil can be produced from at least one of its zones, even though gas or gas condensate may be produced from other zones. Report a multiple completion as a "gas or gas condensate well" if oil cannot be produced from any of its zones.

Line number	Item	9 9-1 Code	9-2 Number of wells: Total	9-3 Number of wells: Oil	9-4* Number of wells: Gas and gas condensate
	(A)	(B)	(C)	(D)	(E)
1	Producing during December 1966	9217			
2	Shut-in or idle during all of December 1966	9225			
3	Successful wells completed during 1967	9233			
4	Purchased or leased during 1967	9282			
5	TOTAL → (Sum of lines 1-4)	9209			
6	Producing during December 1967	9316			
7	Shut-in or idle during all of December 1967	9324			
8	Converted to service wells during 1967	9332			
9	Abandoned during 1967 (exclude dry holes)	9340			
10	Sold or leased during 1967	9357			
11	TOTAL → (Sum of lines 6-10 same as line 5)	9365			

Item 20B – WELLS DRILLED AND COMPLETED DURING 1967

INSTRUCTIONS

Report the designated costs of drilling and equipping all wells completed during 1967, including the cost of dry holes and service wells drilled. Report only the costs specified. Do not include other costs such as taxes, interest on investment, etc. Do not reduce costs by test well and dry hole contributions.

For definitions of "oil," "gas and gas condensate," and types of "multiple completion" wells, see instructions for item 20A.

Lines 1-7 - Report wells drilled which you operated, including wells drilled for own account, and dry holes drilled which you would have operated had they been producers. The number of successful wells should be the same as reported in item 20A, line 3.

Line 3 - Include wells drilled and abandoned without commercial production during 1967 even if they were converted to service wells.

Line 4 - Include gas-injection, water-injection, and brine-disposal wells. Exclude dry holes and all other wells drilled with intent of commercial production even if converted to service wells during 1967.

Line 8 - Report wells drilled for others on a contract, fee, or other basis. Do not include costs borne directly by oil or gas companies and not covered by amounts received by you for contract work such as reported in item 18B, line 18.

Column (C) - Count multiple completions as one well.

Columns (F)-(K) - Report cost of labor, supplies, water, fuel, and power used in operations such as erecting and dismantling drilling rig and derrick, drilling hole, running and cementing casting, and hauling materials. Include machinery and tool charges or rentals; deduct the value of material salvaged after use.

Column (H) - Include cost of delivering and installing equipment, except payments to contractors or subcontractors (columns (F) and (G)). Deduct value of your equipment that was salvaged and used again, but include cost of salvaging. Include tubing, wellhead fittings, gas traps, flow tanks, etc., and drilling derrick retained over well after completion, or special production derrick.

Column (J) - Report items such as artificial lift equipment, separators, heater-treaters, flow lines, and storage tanks. Include associated contract services.

Line number	Kind of wells drilled	9 9-1 Code	9-2 Wells completed during 1967: Number of wells	9-3* Wells completed during 1967: Total footage drilled (Thousand feet)	9 9-1 Code	9-2 Cost of drilling and equipping wells completed during 1967 (Thousands of dollars): Cost, excluding lease equipment beyond the Christmas tree: Payments to drilling contractors or subcontractors, including day work and turnkey	9-3 Payments to other contractors or subcontractors	9-4 Cost of casing, tubing, and well equipment	9-5 All other costs of drilling and equipping	9-6 Cost of lease equipment beyond the Christmas tree	9-7* TOTAL COST (Sum of columns (F)-(J))
	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)
1	WELLS DRILLED WHICH YOU OPERATED, including wells drilled for own account Oil wells	9514			95117	$	$	$	$	$	$
2	Gas and gas condensate wells	9522			95216						
3	Dry holes	9530			95315						
4	Service wells	9548			95414						
5	TOTAL → (Sum of lines 1-4)	9506			95018	$	$	$	$	$	$

Please continue on page 7

FORM MC-13A (1301) — U.S. DEPARTMENT OF COMMERCE, BUREAU OF THE CENSUS

1967 CENSUS OF MINERAL INDUSTRIES

OIL AND GAS FIELD OPERATIONS - Continued

FILE NO.

Page 7

Name of establishment (Same as address box)

Item 20B – WELLS DRILLED AND COMPLETED DURING 1967 – Continued

Line number	Kind of wells drilled (A)	9 9-1 Code (B)	9-2 Wells completed during 1967: Number of wells (C)	9-3* Wells completed during 1967: Total footage drilled (Thousand feet) (D)	9 9-1 Code (E)	9-2 Cost of drilling and equipping wells completed during 1967 (Thousands of dollars): Cost, excluding lease equipment beyond the Christmas tree: Payments to drilling contractors or subcontractors, including day work and turnkey (F)	9-3 Payments to other contractors or subcontractors (G)	9-4 Cost of casing, tubing, and well equipment (H)	9-5 All other costs of drilling and equipping (I)	9-6 Cost of lease equipment beyond the Christmas tree (J)	9-7* TOTAL COST (Sum of columns (F)-(J)) (K)
6	WELLS DRILLED - Continued Multiple completions included in line 5 of preceding page Oil wells	9654			96511	$	$	$	$	$	$
7	Gas and gas condensate wells	9670			96719						
8	WELLS DRILLED FOR OTHERS on a contract, fee, or other basis	9704			97014						

Item 20C – WELLS DRILLED AND COMPLETED DURING 1967 WHICH YOU OPERATED, BY DEPTH RANGE

INSTRUCTIONS

Include wells drilled for own account.

The sum of columns (C) and (F) for each type of well, by depth ranges, should agree with the total number of wells of the same type reported in item 20B, column (C).

Likewise, the sum of columns (D) and (G) should agree with the corresponding figures in item 20B, column (D). The sum of columns (E) and (H) should agree with item 20B, column (K) minus column (J).

Line number	Kind of wells drilled by depth ranges in feet (A)	9 9-1 Code (B)	9-2 Exploration wells: Number of wells (C)	9-3 Exploration wells: Total footage drilled (Thousand feet) (D)	9-4 Exploration wells: Cost of drilling and equipping, excluding costs beyond the Christmas tree (Thousands of dollars) (E)	9-5 Development wells: Number of wells (F)	9-6 Development wells: Total footage drilled (Thousand feet) (G)	9-7 Development wells: Cost of drilling and equipping, excluding costs beyond the Christmas tree (Thousands of dollars) (H)
1	OIL WELLS Less than 2,500	1011 6			$			$
2	2,500 to 4,999	1013 2						
3	5,000 to 9,999	1015 7						
4	10,000 to 12,499	1017 3						
5	12,500 and over	1019 9						
6	GAS AND GAS CONDENSATE WELLS Less than 2,500	1021 5						
7	2,500 to 4,999	1023 1						
8	5,000 to 9,999	1025 6						
9	10,000 to 12,499	1027 2						
10	12,500 and over	1029 8						
11	DRY HOLES Less than 2,500	1031 4						
12	2,500 to 4,999	1033 0						
13	5,000 to 9,999	1035 5						
14	10,000 to 12,499	1037 1						
15	12,500 and over	1039 7						

Item 20D – COST OF DRILLING AND EQUIPPING WELLS COMPLETED DURING 1967 WHICH YOU OPERATED, BY SOURCE OF FUNDS

Line number	Source of funds (A)	9 9-1 Key (B)	9191 Total cost (C): Millions 000	Thousands 000	Dollars 000
1	Operators	9-2	$		
2	Other participating interests	9-3			
3	Contributors	9-4			
4	TOTAL → (Should be same as item 20B, line 5, column (K).)	9-5	$		

Please continue on page 8

Form MC-13A

Item 21A – COUNTY DATA | Page 8

INSTRUCTIONS

List below the counties in the State or district covered by this report in which you operated oil or gas field properties or performed oil and gas field services during 1967. If this is a report for the offshore operations for a State, report only on the lines for "Offshore locations" and "TOTAL." The total figure in column (C) should equal the sum of the figures in items 2a and 2g.

Total figure in column (D) should equal item 18B, column (D), line 1. Total figure in column (E) should equal sum of item 18B, column (D), lines 4 and 5. Total figure in column (F) should equal the sum of figures in item 18B, column (E), lines 7-27. Total figure in column (G) should be same as item 7e.

Line number	State, county (or parish), and offshore locations (A)	9 9–1 Code (B)	9–2 Number of employees in pay period including March 12, 1967 (C)	9–3 Crude petroleum, including lease condensate, shipped during 1967 (Thousands of barrels) (D)	9–4 Natural gas shipped during 1967 (Million cubic feet) (E)	9–5 Amount received or due for services performed during 1967 (F) Millions 000	Thousands 000	Dollars 000	9–6 Capital expenditures during 1967 (G) Millions 000	Thousands 000	Dollars 000
1		8				$			$		
2		8									
3		8									
4		8									
5		8									
6		8									
7		8									
8		8									
9		8									
10		8									
11		8									
12		8									
13		8									
14		8									
15		8									
16		8									
17		8									
18		8									
19		8									
20		8									
21		8									
22		8									
23	Offshore locations	8 99 888									
24	TOTAL → (Sum of lines 1-23)	9 00 00 000 1				$			$		

Item 21B – LEASE TANKS AND CRUDE STOCKS AT END OF 1967

Enter on lines 1 and 2 the number and total capacity of all tanks used for storing crude petroleum on the leases covered by this report. Enter on line 3 stocks of crude petroleum corrected to 60° F., in these tanks on December 31, 1967. Enter total stocks and not your own company's interest only. (Do not include in this item pipeline storage reported to the Bureau of Mines on Form 6-1311-M, Section B, "Pipeline and Tank Farm Stocks.")

Line No.	Item	9 9–1 Key	13359 Quantity (December 31, 1967)
1	LEASE TANKS Number	9-2	
2	Capacity (Barrels)	9-3	
3	LEASE STOCKS (Barrels)	9-4*	

Item 22

Name of person to contact regarding this report | Address (Number and street, city, State) | ZIP code | Telephone: Area code | Number | Extension

CERTIFICATION – This report is substantially accurate and covers the period from _____ to _____

Name of company | Address (Number and street, city, State) | ZIP code

Signature of authorized person | Title | Date

Use additional sheets of paper, if necessary, to complete any item or to submit any explanation. Identify each sheet with the 11-digit file number appearing over your name.

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

1967 CENSUS OF MINERAL INDUSTRIES

INSTRUCTION MANUAL FOR OIL AND GAS FIELD OPERATIONS FORM MC-13A

In all correspondence with the Census Bureau, please include the 11-digit file number which appears in the address box of the report form. High-speed electronic equipment will be used to identify both the correspondence and the reports in the 1967 Economic Censuses. If your correspondence does not include the Census file number, it will be returned for the addition of that number. Address all correspondence to:

JEFFERSONVILLE CENSUS OPERATIONS OFFICE
1201 East 10th Street
Jeffersonville, Indiana 47130

As you complete the report for each establishment, please enter the 11-digit file number at the top of the odd-numbered pages as requested.

This booklet is provided to assist you in filling out the enclosed Census of Mineral Industries Form MC-13A. Please read these instructions and those appearing on the individual report forms for each item before entering your figures.

A. WHO SHOULD REPORT?

The Census of Mineral Industries reports are required by law (Title 13 U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Every concern which operated oil or gas wells, drilled such wells for its own account or for others, performed exploration work for oil or gas, or performed oil or gas field services for others during any part of calendar year 1967 is required to submit a separate report on form MC-13A for each State (excluding offshore operations) or, for Texas, Louisiana, New Mexico, and California, for each district within the State. Separate reports are also required for offshore operations adjacent to each State. Return reports to the Jeffersonville Census Operations Office as shown on the enclosed envelope.

For the operation of oil and gas field properties, the report should be prepared by the **operator** of the properties, whether or not he is the owner or is operating the properties under lease or contract. Each report should be made on a gross basis for all properties operated in the State (or district for Texas, Louisiana, New Mexico, and California) and separately for offshore operations. The report should not include data for properties in which the company only owns an interest but which were operated by others.

Based on Census Bureau records, a report form is provided for each State, district, or offshore area in which your company had oil and gas field activities either as an operator or contractor in 1967. If you have not received sufficient forms to cover all the oil and gas field activities of your company, write for needed forms. Be sure to describe the type of activities carried on at the establishments for which you request additional forms.

1. What is a mineral establishment?

An oil or gas field mineral establishment is defined for Census purposes, as representing all oil and gas field activities in one State (or district in Texas, Louisiana, New Mexico, and California, see map on pages 6 and 7, operated by the reporting company. Such activities include the operation of oil and gas field properties by the reporting company and performance of oil and gas field services for others by that company. Offshore operations adjacent to each State represent a separate establishment. It does not include natural gas liquids plants, pipelines, natural gas distribution systems, petroleum refineries, bulk tank stations, or filling stations. In order to segregate such operations a limited amount of prorating or estimating is acceptable when book records are not readily available.

2. How to report for establishments with no production during 1967

If any of your company's oil and gas field properties has no production at all and you performed no services for others during 1967, you should nevertheless return the report for each such establishment with all other information completed and "0" entered in items 9 and 18B. If a mineral location was not in production, but had custodial employees, maintained inventories, made shipments during the year, drilled wells, or conducted exploration work, the information should be reported in the appropriate sections of the report form. The Census includes sites under exploration and oil and gas fields under development or maintenance only.

B. WHAT ACTIVITIES SHOULD BE REPORTED?

Each report on form MC-13A should cover the activities in one State, or one district in Texas, Louisiana, New Mexico, and California, of concerns which operated wells; performed oil or gas field work for their own account; or performed oil or gas field work for others on a contract, fee, or other basis. Include in the report exploration for oil and gas, drilling and operation of wells, repressuring oil fields, separating and emulsion breaking at field tanks, the operation of field dehydration and pressure maintenance plants, gathering lines, and field storage facilities. For reports on contract services, include such work as exploration for oil and gas; drilling oil, gas, dry, and service wells; drilling water wells for oil-field use; building derricks and lease tanks; running and pulling casing; cementing and shooting wells; and installing production equipment. Do not include the operation of natural gas liquids plants, which should be reported on form MC-13B, or the operation of petroleum refineries which should be reported on form MC-29A. If your concern is engaged in other mining activities, such as mining clay or uranium ores, appropriate report forms should be obtained.

Each report should also include activities such as generating energy for oil and gas field use; maintenance of equipment; and receiving, shipping, storage, research, record keeping, health, safety, food service, and other services, **when carried on primarily for oil and gas field operations.** The report should exclude the operation of company stores, boarding houses, bunk houses, and recreational facilities. The report should also exclude sales branches, research laboratories, and general administrative offices, if they were operated as separate establishments.

Offshore operations – A separate report should be made for **offshore** exploration, drilling, and production operations in territories contiguous to each State. Include areas under Federal jurisdiction as well as under State jurisdiction. For reporting purposes, an offshore well is one which is bottomed at, or producing from, a point which lies seaward from the coastline. In general, the term "coastline" means the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters. For Louisiana, the coastline is defined as the "Chapman Line" as modified by subsequent adjudication. For Alaska, offshore is defined as including Cook Inlet. Note that wells drilled to, and producing from, points underlying inland waters (except Cook Inlet) are considered to be onshore.

C. WHAT PERIOD SHOULD EACH REPORT COVER?

Each report should cover the calendar year 1967. However, a report is required even if the establishment was operated only part of the year. If your book records are not on a calendar year basis, carefully prepared estimates will be acceptable. If reporting on a calendar year basis will involve considerable additional costs, and your fiscal year covers at least 10 months of calendar year 1967 (i.e., ends between October 31, 1967 and February 29, 1968), you may report on a fiscal basis. However, all employment, payroll, and man-hour figures should relate to the calendar year rather than the fiscal year. (These calendar year payroll records should be available from your tax records.)

In the certification, the dates should show the exact period which the report covers. Thus, if an establishment began to operate or ceased to operate within the year, the dates should span only that part of the year during which the oil or gas field properties were operated or services for others were performed. If the operator changed during the year, complete the report only for that part of 1967 in which your company operated the properties or performed such services. Report in item 13 the appropriate information on changes in ownership or operation.

On page 1 of the form a **shaded** column appears. If our records indicate that a comparable report was prepared by you for 1963, the form will have entries based on that report in the shaded column. It is **not** necessary for you to enter any figures in the shaded column. In some instances, the original reported figures have been changed as a result of correspondence or telephone conversations with representatives of your company, or as a result of comparing the 1963 report with your reports filed in earlier years. You should review the data shown for 1963 when entering 1967 figures, and may correct them if they seem inconsistent.

D. HOW SHOULD MULTIPLE ESTABLISHMENT COMPANIES DETERMINE TRANSFER VALUES OF PRODUCTS AND MATERIALS FROM ONE ESTABLISHMENT TO ANOTHER ("INTERPLANT TRANSFERS")?

One of the important statistical measures of mining activity is "value added by mining," which is derived by the Census Bureau from the figures reported for value of shipments; capital expenditures; and cost of supplies, purchased fuels and electric energy, contract work, and purchased machinery installed during the year.

In order for statistics on value added and other subjects to be comparable from industry to industry or area to area, it is necessary that the operations of each establishment of a multiple establishment organization be reported as though the establishment were a separate "economic" unit. This means that the value of interplant transfers within a company should

include, in addition to direct costs of production, a reasonable proportion of "all other costs (company overhead) and profits." The establishments receiving such transfers should report them as purchased materials, minerals for treatment, supplies, fuels, or electric energy at the same value plus costs of freight and other direct handling charges. (See item 5.) Such transfer values should be reported, for example, for crude petroleum transferred to your company's refineries and for natural gas transferred to your company's natural gas liquids plants.

E. DIVISION REPORTS FOR TEXAS, LOUISIANA, NEW MEXICO, AND CALIFORNIA, OR OFFSHORE OPERATIONS

Companies operating in Texas, Louisiana, New Mexico, and California have been sent additional forms for making separate reports for each district (see map on pages 6 and 7) and for offshore operations in each State. In completing the additional forms, enter on each such form in the address box the 11-digit file number appearing in the box above your name on the addressed form, the name of your company, and the district being reported.

SPECIFIC ITEMS

Item 1. PHYSICAL LOCATION – Since reports for oil and gas field operations should represent an entire State (except offshore operations); an entire district for Texas, Louisiana, New Mexico, and California; or all offshore activities adjacent to a State, only line (2) State should be completed. Enter in line (2) the State covered by the report; for a district show the State and district; or for offshore operations show the State followed by the designation "offshore." In item 21A list all counties in which you had activities in the specified State or district.

Item 2. NUMBER OF EMPLOYEES

You may follow the definition of employees specified by your State Employment Security Agency. Report part-time and full-time employees at the establishment who worked or received pay for any part of the pay period (preferably one week) including the 12th of the specified months (i.e., March, May, August, and November of 1967 for "production, development, and exploration workers" and March only for "all other employees"). **Include** all persons on paid sick leave, paid holidays, and paid vacation during these pay periods, as well as those actually working; **exclude** members of armed forces and pensioners carried on your active rolls. **Include** officers at this establishment, if a corporation; if an unincorporated concern, **exclude** proprietor or partners. **Exclude** employees of contractors or subcontractors who performed work for you. **Include** persons at a general office serving oil and gas field operations; do not include any such employees included on form NC-X6, "Central Administrative Offices and Auxiliary Establishments."

If your company was also engaged in this State or district in natural gas liquids production, petroleum refining, other manufacturing, or wholesale or retail trade operations, for Census purposes, employees such as medical staff and yardmen, who work in units that serve these establishments and also oil and gas fields, should be distributed among the respective establishments. The earnings and man-hours of such employees should be likewise distributed.

Item 2a–f. Production, Development, and Exploration Workers – Workers (up through the working foreman level) engaged in manual work, using tools, operating machines, hauling materials, loading and hauling products; caring for mineral properties; exploration work, development, storage, shipping, maintenance, repair, watchman services, auxiliary production for own use (e.g., power plant), record keeping, and other services closely associated with these production and development operations. **Exclude** supervisory employees above working foreman level. For reports from operators, **exclude** employees of contractors.

Item 2f – Divide the total on line **e** by **4** and enter the result on line **f**; divide by **4** even if the establishment did not operate in all four periods.

Item 2g. All Other Employees – Nonproduction personnel at this establishment engaged in supervision above the working foreman level, sales, highway trucking, advertising, credit, collection, clerical and routine office functions, executive, purchasing, finance; and in legal, personnel (including cafeteria, medical, etc.), professional (engineers, geologists, etc.), and technical work. **Include** construction employees on your payroll engaged in construction of major additions or alterations to your facilities who are utilized as a separate work force (force-account employees). Workers engaged in regular maintenance and repair operations should be included with production, development, and exploration workers. **Include** officers at this establishment, if a corporation, but, if unincorporated, **exclude** proprietor or partners. For reports from operators **exclude** employees of contractors.

Item 3A. PAYROLLS – You should follow the definition of salaries and wages that is used for calculating the withholding tax. Report the gross earnings paid in calendar year 1967 to employees on the payroll at the establishment prior to such deductions as employee's Social Security contributions, withholding taxes, group insurance premiums, union dues, and savings bonds. **Include** in gross earnings commissions, dismissal pay, paid bonuses, vacation and sick-leave pay, and the cash equivalent of compensation paid in kind, such as board and housing. **Include** salaries of officers of this establishment, if a corporation; if an unincorporated concern, **exclude** payments to proprietor or partners. **Exclude** payments to contractors or subcontractors who performed work for you (such payment should be reported in item 5e). **Exclude** payments to members of armed forces and pensioners carried on your active payroll. **Exclude** royalty payments to unions.

Item 3B. SUPPLEMENTAL LABOR COSTS NOT INCLUDED IN PAYROLLS

Item 3Ba. Legally Required Expenditures, Including Social Security Contributions – Report employer contributions for all programs required under Federal and State legislation such as Federal Old Age and Survivors' Insurance, unemployment compensation, and workmen's compensation. Establishments located in Rhode Island, California, New York, and New Jersey should also include State temporary disability payments.

Item 3Bb. Payments for Voluntary Programs – Include union negotiated contracts. For programs supported by joint employer-employee contributions, **include** only the employer payments. **Include** employer payments of: (a) insurance premiums on hospital and medical plans, (b) life insurance premiums, and (c) premiums on supplementary accident and sickness insurance. In reporting payments for insurance report net payments, i.e., gross payments less any offsetting dividends, refunds, or other reductions in premiums.

Also **include** payments or allocations on: (a) all pension plans regardless of method of administration, (b) supplemental unemployment compensation plans, (c) welfare plans, (d) stock purchase plans in which the employer payment is not subject to withholding tax, and (e) deferred profit sharing plans.

The items listed in the paragraph above are generally considered as deferred rather than current income to employees and are not subject to withholding of income tax. If the payments or allocations by the company are made to a fund, payments to employees out of these funds should not be reported. However, payments made directly to retired employees or their survivors that do not pass through a fund should be included in item 3Bb.

Exclude expenditures not of the type listed above such as losses on company operated cafeterias and snack bars, cost of in-plant medical services, cost of free parking lots, discounts on employee purchases, cost of uniforms and other work clothing supplied to employees, and similar expenditures.

Exclude payments which should be reported as wages and salaries in item 3A, such as payments for holidays, vacations, sick pay, bonuses, unused vacation, jury pay, night shift bonus, suggestion awards, and the payments in the form of shared profits and special stock purchases which are subject to withholding tax.

If any of the items are maintained in your records only at the company level, allocate to the mining establishments. In such cases, you may distribute the total on the basis of the ratio of the payroll of each mining establishment to the total company payroll unless you have developed your own method of making such allocations. Specify in "Remarks" the method used and the approximate portion that has been allocated.

Item 4. MAN-HOURS OF PRODUCTION, DEVELOPMENT, AND EXPLORATION WORKERS, BY QUARTER

– The man-hour figures are designed to measure the over-all activity of the establishment during the year on **both active and inactive days.** For oil and gas field operations, only the total man-hours are required in item 4, no data need be reported by quarter. Report man-hours by department in item 19. The figures should represent all man-hours worked or paid for, except hours for paid vacations, holidays, or sick leave, when the employee was **not** at the establishment. If an employee elects to work during the vacation period, report only actual hours worked by such employee. Overtime hours should be reported as actual hours worked, not straight-time equivalent hours.

The figures should account for **all** man-hours worked at this establishment for the entire year by all full-time and part-time production, development, and exploration workers reported in item 2. **Exclude** hours worked by employees of contractors or subcontractors who performed work for you, or by proprietors or partners.

A man-hour is the work of one person for one hour. Report figures from actual records of man-hours wherever available. If no records of man-hours were kept, estimate man-hours from payroll or other records.

Item 5. COST OF SUPPLIES, ETC.

The entries in this item are used by the Census Bureau to calculate the 1967 value added by mining. The figures reported should represent the total purchase cost of supplies, gas purchased for gas lift and repressuring, purchased machinery installed, purchased fuels for power or heat, etc., actually used during 1967 whether purchased or withdrawn from inventories. Include items charged to **both the current and capital accounts.**

Include items consumed by the establishment during the year although purchased prior to 1967; gas purchased from others for gas lift (this should also be reported separately in item 17A), purchased supplies consumed for production, drilling, other development, exploration, maintenance, and repair of plant and equipment, and in plant construction; supplies which you furnished without charge to contractors or sold to employees for use on the oil and gas properties covered by this report; consumption of items received from other establishments of your company for which separate reports are being submitted.

Exclude items received during the year which were not consumed; services such as advertising, telephone, telegraph, cable, insurance, development, and research rendered by other establishments to this establishment, or services of engineering, management, marketing, legal, and other professional consultants, etc.; expenses such as depreciation and depletion charges against plant and equipment, rent and rental allowances, interest payments, royalties, and use of patent fees; supplies (such as timber or lumber), parts, or machinery **produced at this establishment;** extraordinary losses such as by fire and flood; and wages of your employees engaged in maintenance and repair work (report these wages in item 3A); and oil and gas produced on these properties.

If your records do not show the amounts actually consumed during 1967, the figures to report may be derived from purchase and other records. Cost of purchases may be used if these do not differ significantly from the amounts actually used. However, if consumption of any major item differs significantly from purchases, the amount used may be estimated by adding beginning-of-year inventories to the amounts purchased and subtracting from this total the cost of the item on hand at the end of the year.

Cost is delivered cost and should be the amount actually paid or payable after discounts and should include freight and other direct charges incurred by the establishment in acquiring supplies consumed. The cost figures for consumption should represent receipts from all sources, i.e., amounts purchased from other establishments, withdrawn from inventories, or obtained from other establishments of the same company.

For supplies, gas purchased for gas lift, machinery installed, purchased fuels, and electric energy received from other establishments of your company, cost should be checked against the values reported for the establishment producing and transferring the supply (see instruction D on page 2). Freight and other direct handling charges should be added.

Item 5a. Supplies Used, Minerals Received for Preparation, and Purchased Machinery – The following list of examples of supplies will indicate the types of items which should be included. The list is shown only as an example. It should not be considered a complete list of the items which should be included.

Bearings
Bolts, screws, and nuts
Casing
Cement
Clay
Drill bits and reamers
Drilling fluid materials
First aid and safety supplies
Gears and pinions
Hand tools
Hardware
Lubricating oils
Lumber
Piling
Pipe and fittings
Plates and sheets
Pumps
Rods and bars
Stationery, stamps, and office supplies
Sulfuric acid
Tools, dies, jigs, and fixtures
Tubing
Water purchased
Welding rods, electrodes, and acetylene
Wire, cable, and chain

Include also gas purchased for gas lift or repressuring and all new and used machinery, equipment, and parts installed whether purchased or received from other establishments of your company.

Include only physical goods used or put into production. **Exclude services used or overhead charges.** The cost of services performed for you by others should be reported in item 5e.

Item 5b. Products Bought and Resold Without Further Processing – Report the cost of all products bought and resold in the **same** condition as when purchased. (Total sales value of such products resold is to be reported in item 18B, line 28.) **Exclude** oil or gas purchased for resale.

Item 5c. Purchased Fuels Consumed – Report the total cost of all purchased fuels consumed during 1967 for heat, power, or the generation of electricity. Include anthracite, bituminous coal, coke, natural and manufactured gas, fuel oil, liquefied petroleum gas, gasoline, wood, and all other fuels, including purchased steam. **Exclude** gas purchased for gas lift. **Exclude** crude petroleum and natural gas produced at this establishment and used for power or heat (report this in item 17B lines 7 and 8. Fuels used at these operations, but produced in another establishment of your company, such as petroleum refinery or natural gas liquids plant products, should be reported as fuels in items 5c and 17B, lines 1–6, and commercial values assigned to them. (See instruction D on page 2.)

Item 5d. Purchased Electricity – Report the total cost of electric energy purchased during 1967 from other companies or received from other establishments of your company. **Exclude** the value of electricity generated and used at this establishment, but report its quantity in item 8b.

Item 5e. Contract Work Done for You by Others – Report the total payments made for contract or subcontract services performed during 1967, including payments for supplies and equipment furnished by the contractor incidental to this work.

If part of the payment to a contractor was in oil or gas produced, an estimate of the value of the service should be reported.

Item 6. MINERAL RIGHTS AND GEOLOGICAL EXPENDITURES – Oil and gas field operations need not report in this item. However, selected companies will be asked to report such information on a net working interest basis on form NC-K13.

Item 7. CAPITAL EXPENDITURES DURING YEAR EXCEPT LAND AND MINERAL RIGHTS

Report the actual capital outlays during 1967, not the final value of development or buildings completed, or equipment put in place during the year. Capital expenditures during 1967 may be determined by the following computation: (a) the cost of exploration work, development work, and additions completed during the year, plus (b) work-in-progress at the end of the year, minus (c) work-in-progress at the beginning of the year. Labor and installation costs should be included whether on contract or by your own forces. These expenditures are of the type for which depreciation or depletion accounts are ordinarily maintained. Do not include the cost of maintenance and repairs charged as current operating expense. If no expenditures of the kind described were made, enter "0."

Item 7a. Mineral Development and Exploration – Report development and exploration outlays which were charged to a capital account. **Include** capitalized expenditures for oil and gas field exploration, and for drilling oil, gas, dry, and service wells.

DISTRICT MAP

CALIFORNIA AND NEW MEXICO



DISTRICT MAP

TEXAS AND LOUISIANA



Item 7b. New Structures and Additions – Include expenditures for new construction, major additions, and alterations (including improvements and capitalized repairs) for power plants, repair shops, offices, lease tanks, lines up to delivery end of lease tanks and delivery gas meter, and oil and gas field rail and other roads. Include, where capitalized, expenditures for construction by your own employees. **Exclude** construction of company houses, recreational facilities, and rail and other roads and pipe lines used only for transportation beyond the limits of properties covered by this report.

Item 7c. New Machinery and Equipment – Report total expenditures at this establishment for new machinery and new equipment capitalized during 1967. **Include** replacements as well as additions to capacity. **Include** the value of equipment produced and used at this establishment. **Include** new drilling rigs and lease equipment, new casing and wellhead fittings, and also new motors, as well as new office machines and fixtures, furniture, cafeteria and change-room furnishings, automobiles, trucks, and similar equipment. **Include** the value of improvements and capitalized repairs to equipment installed after completion of wells.

Item 7d. Used Plant and Equipment – Report total expenditures at this establishment for old or existing plants and for secondhand equipment acquired from others, including the U.S. Government. **Include** at approximate market value used machinery or equipment transferred from other establishments of your company.

Item 8. QUANTITY OF ELECTRICITY

Report all quantities of electricity in **thousands** of kilowatt hours.

Item 8a. Purchased Electricity – Report the quantity of electricity for which cost is reported in item 5d.

Item 8b. Generated Electricity – Enter the total quantity of electric energy generated at this establishment (gross less generating station use) during 1967. **Include** energy which was sold to other companies or transferred to other establishments of your company. **Include** energy generated at the drilling site which was used for lighting and other purposes. Estimate quantity if book records are not available.

When a figure is reported on this line, data relating to the activity of the power stations should also be included in other sections of this report. For example, the number of employees assigned to the power station, their wages and man-hours, should be included in the figures reported in items 2, 3, and 4 and the cost of fuels used to generate electricity, in items 5c and 17B.

Item 8c. Electricity Sold or Transferred – Enter the quantity of electric energy, which was also included in items 8a and 8b, but which was sold to other companies or transferred to other establishments of your company.

Item 9. QUANTITY AND VALUE OF PRODUCTS SHIPPED AND OTHER RECEIPTS – See instructions on form.

Item 10. GROSS BOOK VALUE FIXED ASSETS – Oil and gas field operations need not report in this item. However, selected companies will be asked to report such information on a net working interest basis on form NC-K13.

Item 16. WATER INTAKE DURING 1967 – If you do not have exact records of the total quantity of water intake at this establishment, estimate the amount on the basis of the approximate number of gallons for a typical working day and the number of days which your establishment was operated during 1967. Include only primary intake from natural sources; do not include recirculation.

Item 17A. GAS PURCHASED FOR GAS LIFT AND REPRESSURING, PURCHASED MACHINERY INSTALLED, AND SUPPLIES USED DURING 1967

This inquiry calls for a breakdown of the gas purchased for gas lift at these operations, purchased machinery installed, and supplies used during 1967 reported in item 5a of this form. Separate figures are required for each item listed. The total cost in item 17A, column (D), should agree with the total cost reported in item 5a.

Column (C). Quantity – Report the quantities actually used in terms of the unit of measure specified in column (B-2).

Column (D). Delivered Cost – Report amounts actually paid or payable after discounts, and include freight and direct charges incurred in acquiring the quantities of the listed items during 1967. For supply items transferred from other establishments of this company, report values as described in instruction D on page 2.

Line 2. Purchased Machinery Installed – Include all machinery, equipment, parts for renewals and repairs, and used plant which were purchased, or which were received from other establishments of your company. whether charged to the current or capital accounts. (Machinery charged to the capital account should also be reported in Item 7.) **Include** equipment which was installed at these operations as well as mobile equipment. **Include** such equipment as exploration and well survey machinery, drilling rigs, derricks, flow tanks, oil and gas separators, pumping equipment, Christmas trees, gauges, gas traps, control equipment, chokes, and trucks and cars for use on lease. **Exclude** such items as casing, tubing, and pipe which should be reported in item 17A, line 3.

Line 3. Steel Mill Shapes and Forms – If records for the tonnage of steel mill shapes and forms used are not available, an estimate is acceptable.

Item 17B. FUELS CONSUMED DURING 1967

Report only fuels used at this operation for power or heat or generation of electricity. **Exclude** gas purchased for gas lift which should be reported as a supply in items 5a and 17A, line 1.

Lines 1-6. Fuels Purchased and Received From Other Establishments – Report all fuels purchased from other companies or transferred from other establishments of your company. The total cost in item 17B should agree with item 5c. Report the quantities of purchased fuels in the unit of measure specified in column (B-2).

Line 4. Gasoline – Report gasoline used in automotive equipment as well as other equipment.

Lines 7 and 8. Fuels Produced and Used at This Establishment for Power and Heat – Report quantities of crude petroleum and natural gas which were produced and used at the operations covered by this report. Note that crude petroleum is to be reported in **thousands** of barrels and natural gas in **millions** of cubic feet at 14.73 pounds absolute at 60° F.

Item 18B. PRODUCTS AND SERVICES OF THIS ESTABLISHMENT DURING 1967

Line 26. Other Oil and Gas Field Services – Include services such as the following:

Abandoning wells, oil or gas field
Building board roads (as a contract service)
Building drilling platforms on leases
Building offshore drilling islands
Clearing locations
Crane work -- on leases
Dirt work in oil or gas fields
Dredging canals, driving keyways, construction work
Drilling rat holes and mouse holes
Fishing for tools
Flooding and water injection
General oil field contracting
Lease maintenance
Oil and gas well shooting
Pipe line construction on leases; construction of gathering lines to point where distribution company takes over
Pipe testing
Plugging wells
Preparation of drilling sites
Rolling pipe, leveling, etc.
Roustabout work
Salt water disposal systems
Sand blasting pipe lines on leases
Servicing wells
Vacuum truck service
Water well drilling (on leases)

Item 19. MAN-HOURS OF PRODUCTION, DEVELOPMENT, AND EXPLORATION WORKERS, BY DEPARTMENT, DURING 1967

Line 1. Operating and Maintaining Wells – Include all operation and maintenance activities for the production of oil and gas and transportation of oil from the well to the first lease tank and gas from the well to the delivery meter. For oil production, include field separation.

Line 2. Drilling Wells and Rig Building – Only direct drilling and rig building activities should be included in this item. **Include** drilling in, spudding in, tailing in, and reworking wells. Segregate, by estimate if necessary, and include on line 4 the man-hours for trucking on to location, and also for installing wellhead fittings and other work in connection with completion of wells.

Line 3. Exploration Work (except drilling wells) – Include such activities as geophysical exploration, geologic leasing, and scouting. Shot-hole drilling and core drilling should be also included.

Item 20A – See instructions on form.

Item 20B. WELLS DRILLED AND COMPLETED DURING 1967

– Report on **lines 1-4** data for **all wells drilled which you operated,** including both wells drilled for you by your own employees and wells drilled for you on contract by others. **Include** the cost of wells drilled and abandoned before completion during 1967. Report on **line 8** data for **all** oil, gas, dry, and service **wells drilled for others** on a contract, fee, or other basis and which you did not operate. **Include** both "turnkey" wells and all other wells for which you were the drilling contractor.

Include the cost of wells completed in 1967 although begun in 1966. **Exclude** the cost of drilling wells that were still in process of drilling or completion at the end of 1967. Costs for wells reported in this item usually should differ from such costs capitalized by the operator and reported in item 7. Item 20B represents total costs for wells completed in 1967, irrespective of when started, whereas item 7 includes only costs for work done in 1967 but covers costs for wells not yet completed at the end of 1967.

Report only the costs specified. Other costs such as taxes, interest on investment, overhead costs, etc. should not be included. Do not reduce costs by test well and dry hole contributions.

Columns (F) and (G). Payments to Contractors – If all wells were drilled and entirely completed on contract, with the contractor supplying the casing and other equipment (as on "turnkey" jobs), all figures should be reported in columns (F) and (G). If the amounts paid to contractors represented only the amounts paid for drilling wells on contract and you supplied the casing or other well equipment, the cost of this equipment should be reported in column (H). If part of the payment to contractors was in oil or gas, estimate carefully the value of this oil or gas and include it in the total amount paid to contractors.

Column (H). Cost of Casing, Tubing, and Well Equipment – Report the cost of all equipment chargeable to the wells reported in column (C) and necessary for production or capping. If any of the costs were in the form of payments to contractors, such payments should be segregated and reported in columns (F) or (G). **Include** costs for transportation of casing to the site of operations; for dry holes deduct the value of salvaged casing less the cost of salvaging. **Include** tubing, packers; wellhead fittings, such as Christmas tree and connections, tubing head, chokes, gauges, anchor clamps; and the cost of pumping derrick. If drilling derrick was left over well after completion and was used for production, exclude all costs of such derrick from cost of drilling (columns (F) and (I)) and report them in columns (H) or (G). **Do not include** here, but report separately in column (J), the cost of lease equipment beyond the Christmas tree, such as artificial lift equipment, oil and gas seperators, heater-treaters, flow lines, and storage tanks.

Column (I). All Other Costs of Drilling and Equipping – Include the cost of labor, supplies, water, fuel, and power used in operations such as: moving on to location all equipment and supplies incidental to operations; excavating for derrick foundation; building derrick foundation; digging slush pit; erecting derrick and wiring same; building loading or pipe racks; laying fuel and water lines; rigging up; drilling hole; making straight-hole tests or surveys; coring; well logging and core analysis; testing formation; mud conditioning; reaming; running casing, screen, and liner; cleaning out; bailing; swabbing; fishing; repairing and maintaining rig or derrick; tearing down rig; dismantling derrick and racks; and moving equipment off location. Report the cost, including freight and express charges thereon, of all supplies used in the above operations, such as mud, weighting materials, and mud chemicals; lumber or timber for making forms, mud boxes, pipe racks, constructing derrick, etc.; cement, sand, and gravel; all rig-operating supplies such as oils, grease, packing, rope, firebrick, etc.; all drilling bits, reamers, and core heads; hand tools; iron and steel for derrick and for blacksmithing; cordage and wire lines; and any additional supplies necessary for the operation of either rotary or cable tool outfit. **Deduct** the value of materials salvaged after use. **Include** depreciation or amortization charges for the use of drilling machinery and tools; if the machinery and tools were rented, report the rentals thereon. Do not include the cost of equipment chargeable to the well, but report it under columns (F), (G), and (H). Include the total cost of water, if purchased, or cost of water well if drilled and chargeable to oil or gas well drilling operations. Include also all fuel or power used in connection with these operations. If some of the fuel or power was not purchased, include a carefully estimated value of such fuel or power used.

Item 20C. WELLS DRILLED AND COMPLETED DURING 1967 WHICH YOU OPERATED, BY DEPTH RANGES – Wells may be separated between exploration and development on the basis of the definitions in the American Association of Petroleum Geologists Bulletin.

Item 21. See instructions on form.

Item 22. PERIOD OF REPORT – Enter the month and day of the beginning and the end of period your report covers. If a calendar year report: "From January1 to December 31, 1967;" if a fiscal year, specify which (such as "From December 1, 1967 to November 30, 1967"). If a part-year report is submitted because the establishment was not in operation or under your company's control for the entire year, specify the actual period covered: For example, "January 1, 1967, to August 15, 1967" or "June 1 to December 31, 1967."

☆ U.S. GOVERNMENT PRINTING OFFICE : 1971 O—413-082

Contents

	Page
New England	2
Middle Atlantic	7
East North Central	14
West North Central	21
South Atlantic	28
East South Central	35
West South Centrad	42
Mountain	49
Pacific	56

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]298	54	4.0	28.3	2.9	6.3	18.3	51.4
1963	[1]350	58	4.0	22.9	3.2	6.8	16.7	42.4
1958	344	39	3.6	17.4	2.7	5.7	11.8	32.3
1954	385	40	4.1	15.7	3.5	7.6	12.4	32.1
Including operations in manufactures:								
1967	366	67	5.8	38.6	4.5	9.7	26.9	70.1
1963	450	78	6.4	34.9	5.4	11.5	27.1	67.5
1958	443	58	6.5	29.7	5.2	10.9	21.5	54.0
1954[2]	456	56	6.0	23.1	5.2	11.1	19.0	46.8
1939[3]	[4]332	(NA)	4.9	6.6	4.3	8.7	4.9	14.4
1929[5]	354	(NA)	9.2	14.6	8.4	(NA)	12.2	26.2
1919[6]	302	(NA)	7.8	9.3	7.2	(NA)	8.0	14.9
1909[6]	519	(NA)	18.0	10.7	17.1	(NA)	9.8	14.6
1902[7]	[4]746	(NA)	18.0	11.1	[8]16.7	(NA)	10.0	14.8

Kind of operation and year	Selected expenses				Value of shipments and receipts [9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resales, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]21.2	([10])	3.6	([10])	67.7	8.5	(NA)
1963	13.4	.7	1.6	5.3	56.2	7.1	.9
1958	11.5	.1	1.4	2.7	44.0	4.0	.7
1954	8.8	.1	1.2	3.4	41.3	4.3	.5
Including operations in manufactures:							
1967	[11]32.0	([11])	([11])	([11])	93.0	9.1	(NA)
1963	[12]22.4	1.1	[12]1.7	[13]6.1	90.7	[13]8.0	(NA)
1958	[12]16.4	.5	[12]1.6	[13]3.4	71.2	[13]4.7	[13].9
1954[2]	[12]11.9	.5	[12]1.4	[13]3.7	59.6	[13]4.6	[13].6
1939[3]	3.4	(NA)	(Z)	(NA)	17.8	(NA)	.4
1929[5]	4.4	(NA)	(Z)	1.4	30.7	(NA)	.7
1919[6]	3.6	-	.2	(NA)	18.7	(NA)	[14].4
1909[6]	2.7	-	.1	(NA)	17.3	(NA)	(NA)
1902[7]	2.8	(NA)	(Z)	(NA)	17.6	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations, and for one dimension granite mining operation, in manufacturing establishments.

[3]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. Excludes data for one nonproducing operation in Maine.

[4]Represents number of mines and quarries.

[5]Excludes data for common clay and shale and peat operations. There were 27 such mines in 1939; the value of products of 24 of these mines was $142 thousand.

[6]Excludes data for sand and gravel operations and stone quarries operated as parts of cement and lime establishments. There were 53 such establishments in 1929; the value of products of 51 of these establishments was $3,299 thousand. For 1919, excludes data for two nonproducing establishments. See also footnote 5.

[7]Excludes data for sand, gravel, common clay, and shale operations. Includes data for lime plants producing lime valued at $1,490 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919 and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for the cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to about 8 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	298	54	4.0	28.3	2.9	6.3	18.3	51.4	24.8	67.7	8.5	4.0	42.4
10	Metal mining	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1021	Copper ores	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1211	Bituminous coal	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction	11	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1389	Oil and gas field services, n.e.c.	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	278	50	3.5	23.6	2.9	6.1	17.9	50.3	22.8	67.4	5.6	3.7	42.0
141	Dimension stone	21	5	.3	1.8	.3	.6	1.5	3.5	1.2	4.6	.1	.4	3.6
1413	Dimension granite	12	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	3.4
142	Crushed and broken stone	49	16	1.0	8.0	.8	1.7	5.5	16.4	8.0	22.5	2.0	.9	10.9
1422	Crushed and broken limestone	21	6	.3	1.9	.2	.5	1.3	3.3	1.9	4.7	.5	.3	2.9
1423	Crushed and broken granite	7	5	.3	2.3	.2	.4	1.6	4.1	2.5	6.4	.2	.2	1.3
1429	Crushed and broken stone, n.e.c.	21	5	.4	3.9	.3	.7	2.6	9.0	3.6	11.4	1.2	.4	6.7
144	Sand and gravel	183	23	1.6	10.7	1.4	2.9	8.6	22.5	10.6	30.2	2.9	2.0	22.0
1442	Construction sand and gravel	177	21	1.6	10.2	1.3	2.8	8.2	21.3	10.0	28.7	2.7	(NA)	(NA)
145	Clay and related minerals	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1456	Feldspar	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	14	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.2
1496	Talc, soapstone, and pyrophyllite	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1499	Nonmetallic minerals, n.e.c.	5	1	.2	1.3	.2	.4	1.0	3.0	1.1	4.0	.1	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	68	13	1.8	10.3	1.6	3.4	8.6	18.7	7.2	25.3	[2]0.6	2.5	25.2
1411	Dimension stone	22	13	1.6	9.1	1.4	3.0	7.5	13.5	5.8	18.8	0.6	1.9	12.9
142	Crushed and broken stone	8	-	0.1	0.4	0.1	0.1	0.4	2.3	0.9	3.2	(NA)	0.4	8.6
1422	Crushed and broken limestone	5	-	(Z)	0.3	(Z)	0.1	0.3	1.2	0.6	1.9	(NA)	0.1	3.0
144	Sand and gravel	27	-	0.1	0.6	0.1	0.2	0.6	2.6	0.2	2.8	(NA)	0.1	3.2
145	Clay and related minerals n.e.c.	11	-	(Z)	0.2	(Z)	0.1	0.2	0.3	0.2	0.5	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1]For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2]Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New England Division:													
	Establishments.....number..	298	291	44	-	43	1	137	3	131	3	4	106	7
	Employees.....1,000..	4.0	3.9	.5	-	(D)	(D)	2.3	(D)	2.1	(D)	.1	1.1	.1
	Value added in mining..mil.dol..	51.4	49.8	5.7	-	(D)	(D)	35.7	(D)	32.4	(D)	1.1	7.3	1.7
10	Metal mining:													
	Establishments.....number..	7	5	3	-	3	-	-	-	-	-	-	2	2
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	4	3	1	-	1	-	-	-	-	-	-	2	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	(D)
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
12	Bituminous coal and lignite mining:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	11	7	-	-	-	-	-	-	-	-	-	7	4
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	8	4	-	-	-	-	-	-	-	-	-	4	4
	Employees.....1,000..	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	278	277	41	-	40	1	137	3	131	3	4	95	1
	Employees.....1,000..	3.5	(D)	(D)	-	(D)	(D)	2.3	(D)	2.1	(D)	.1	.6	(D)
	Value added in mining..mil.dol..	50.3	(D)	(D)	-	(D)	(D)	35.7	(D)	32.4	(D)	1.1	7.1	(D)
141	Dimension stone:													
	Establishments.....number..	21	21	19	-	19	-	2	-	2	-	-	-	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	3.5	3.5	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	49	48	2	-	2	-	44	-	43	1	-	2	1
	Employees.....1,000..	1.0	(D)	(D)	-	(D)	-	.8	-	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	16.4	(D)	(D)	-	(D)	-	14.5	-	(D)	(D)	-	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	183	183	12	-	11	1	78	-	77	1	4	89	-
	Employees.....1,000..	1.6	1.6	.1	-	(D)	(D)	1.0	-	(D)	(D)	.1	.6	-
	Value added in mining..mil.dol..	22.5	22.5	1.0	-	(D)	(D)	13.5	-	(D)	(D)	1.1	6.9	-
145	Clay and related minerals:													
	Establishments.....number..	8	8	5	-	5	-	3	-	2	1	-	-	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	.2	-	.2	-	(D)	-	(D)	(D)	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	14	14	3	-	3	-	10	3	7	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	.2	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	3.1	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New England division, total.....	298	7	-	2	11	278
0 to 4 employees.....	125	3	-	-	9	113
5 to 9 employees.....	59	1	-	1	1	56
10 to 19 employees.....	60	1	-	-	-	59
20 to 49 employees.....	39	-	-	-	-	39
50 to 99 employees.....	12	1	-	1	-	10
100 to 249 employees.....	3	1	-	-	1	1

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] 2,646	524	54.3	400.5	43.7	88.4	291.7	791.1
1963	[1] 4,080	523	62.6	364.6	50.9	99.7	273.7	740.3
1958	4,500	636	87.4	48.8	72.8	124.4	324.4	733.3
1954	5,320	782	120.8	483.9	105.0	177.2	392.2	[2] 767.2
Including operations in manufactures:								
1967	2,786	552	56.3	411.2	45.6	92.3	302.0	823.8
1963	4,322	565	65.5	379.3	53.7	105.5	288.0	786.5
1958	4,750	683	90.4	431.4	75.7	130.1	336.6	779.2
1954[3]	5,541	842	124.3	497.0	108.5	184.1	404.9	[2] 800.7
1939[4]	[5] 3,953	(NA)	219.5	297.5	203.9	317.7	259.3	428.3
1919[6]	6,617	(NA)	353.7	495.4	334.3	(NA)	458.2	681.1
1909[6]	6,776	(NA)	389.7	219.3	377.0	(NA)	205.2	305.8
1902[7]	[5] 13,873	(NA)	209.1	128.9	[8] 198.8	(NA)	118.5	204.0
Excluding oil and gas extraction industries:								
1967	2,115	507	(D)	(D)	(D)	(D)	(D)	(D)
1963	3,391	526	59.8	349.2	49.8	97.6	270.0	726.7
1958	3,685	633	83.8	402.4	70.5	120.0	316.5	719.9
1954[3]	4,129	786	114.0	457.1	100.3	168.0	377.0	[2] 726.9
1939[4]	[5] 2,724	(NA)	208.7	281.4	194.9	301.2	247.8	376.7
1929[9]	2,197	(NA)	301.2	457.2	286.6	(NA)	419.4	622.3
1919[9]	2,913	(NA)	341.7	481.1	324.4	(NA)	446.9	625.2
1909[6]	3,022	(NA)	381.5	213.6	369.9	(NA)	200.8	276.6
1902[10]	[5] 3,689	(NA)	199.4	121.6	[8] 190.5	(NA)	112.8	184.1

Kind of operation and year	Selected expenses				Value of shipments and receipts[11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12] 470.0	([12])	41.5	([12])	1,195.0	107.5	(NA)
1963	213.8	147.3	63.5	72.9	1,128.8	109.1	13.0
1958	208.1	164.2	81.9	65.7	1,160.0	92.7	14.9
1954	189.4	[2] 177.4	102.3	68.6	[2] 1,229.3	75.5	19.3
Including operations in manufactures:							
1967	[13] 519.7	([13])	([13])	([13])	1,235.8	(NA)	(NA)
1963	[14] 226.8	147.4	[14] 63.6	[15] 73.1	1,188.1	[5] 109.3	[15] 13.0
1958	[14] 216.2	164.2	[14] 81.9	[15] 65.4	1,214.0	[15] 93.0	[15] 15.0
1954[3]	[14] 198.4	[2] 177.4	[14] 102.4	[15] 68.7	[2] 1,271.9	[15] 75.7	[15] 19.4
1939[4]	83.4	(NA)	17.5	(NA)	529.2	(NA)	30.1
1919[6]	155.7	[16] 8.2	8.9	(NA)	853.9	(NA)	[17] 104.4
1909[6]	55.2	[16] 3.2	6.6	(NA)	370.7	(NA)	(NA)
1902[7]	33.0	(NA)	6.0	(NA)	242.9	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[13] (D)	([13])	([13])	([13])	(D)	(NA)	(NA)
1963	[14] 215.1	146.6	[14] 51.6	[15] 68.9	1,116.9	[15] 92.0	[15] 11.3
1958	[14] 201.5	162.8	[14] 69.6	[15] 61.1	1,137.3	[15] 77.6	[15] 13.0
1954[3]	[14] 181.0	[2] 177.4	[14] 79.5	[15] 61.1	[2] 1,171.2	[15] 54.6	[15] 17.0
1939[4]	78.3	(NA)	12.4	(NA)	467.5	(NA)	27.5
1929[9]	116.8	(NA)	7.7	18.3	746.8	(NA)	56.5
1919[6]	143.8	5.1	3.7	(NA)	777.7	(NA)	[17] 101.0
1909[6]	49.4	(Z)	2.9	(NA)	328.9	(NA)	(NA)
1902[10]	26.4	(NA)	.9	(NA)	211.5	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1.--Middle Atlantic--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 936 single unit establishments without paid employees in this division. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry. For minerals received for preparation at natural gas liquids plants, excludes the cost of natural gas processed, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[3]Excludes figures for sand and gravel mining operations in manufacturing establishments.

[4]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. Except for number of establishments, excludes data for nonproducing operations in New Jersey as follows: One iron ore mine and one trap rock quarry and crushing plant. For "Excluding oil and gas extraction industries," includes data for one nonproducing crude petroleum and natural gas establishment in Pennsylvania.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and for crude petroleum and natural gas and mining services industries number of operating companies.

[6]Excludes data for sand and gravel mining operations and for stone quarries operated as parts of cement and lime establishments. There were 141 such sand and gravel establishments in 1929, with products valued at $26,003 thousand and 46 such stone operations at 46 establishments (the value of quarry products at 44 of these establishments was $6,531 thousnad.) See also footnote 9. For "Excluding oil and gas extraction industries" in 1909, except for number of establishments, includes data for 2 nonproducing oil and gas extraction operations.

[7]Excludes data for sand, gravel, common clay, and shale mining operations and, except for 2 operations in New Jersey, for crushed and broken stone quarries operated as parts of cement establishments. Includes data for lime plants producing lime value at $2,114 thousand and for 2 cement plants in New Jersey.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Excludes data for common clay and shale mining operations. In 1939, there were 105 such mines with products valued at $1,182 thousand.

[10]Includes data for nonproducing oil and gas extraction operations in Pennsylvania. See also footnote 7.

[11]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For crushed and broken stone, sand and gravel, clay, and gypsum operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes figures for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments. For New Jersey in 1958, also excludes figures for dimension stone operations in manufacturing establishments. For energy used and horsepower in 1963, also excludes figures for dimension stone operations in manufactures.

[16]Includes natural gas purchased for resale.

[17]Excludes purchased electric energy. For "All operations" in 1939, the quantity of purchased electric energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used; and for "Excluding oil and gas extraction industries" in 1929, to 2 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations	2,646	524	54.3	400.5	43.7	88.4	291.7	791.1	511.5	1,195.0	107.5	62.6	740.3
10	Metal mining	45	20	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	5.9	76.8
1011	Iron ores	9	5	2.9	20.9	2.4	4.7	17.0	42.4	20.7	61.5	1.5	3.4	55.6
1021	Copper ores	10	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	8	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lead ores	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Zinc ores	5	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	9	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	6	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1093	Titanium ores	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
11	Anthracite mining	404	69	7.1	41.1	6.2	11.6	34.9	81.3	80.7	155.6	6.3	11.8	120.5
111	Anthracite mining	404	69	7.1	41.1	6.2	11.6	34.9	81.3	80.7	155.6	6.3	11.8	120.5
1111	Anthracite	372	57	6.5	36.8	5.5	10.3	31.2	75.3	76.7	147.1	5.0	10.7	110.5
1112	Anthracite mining services	32	12	.8	4.2	.7	1.3	3.8	5.9	4.0	8.5	1.3	1.1	10.0
12	Bituminous coal and lignite mining	747	194	23.1	174.9	19.8	39.3	142.4	332.2	258.7	536.7	54.2	24.4	281.0
121	Bituminous coal and lignite mining	747	194	23.1	174.9	19.8	39.3	142.4	332.2	258.7	536.7	54.2	24.4	281.0
1211	Bituminous coal	713	189	22.8	172.8	19.5	38.6	140.5	327.7	256.2	530.7	53.2	23.9	275.8
1213	Bituminous and lignite mining services, n.e.c.	34	5	.3	2.1	.3	.7	1.9	4.6	2.6	6.0	1.0	.5	5.1
13	Oil and gas extraction	671	45	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	5.7	59.8
131	Crude petroleum and natural gas	438	25	2.4	14.9	2.2	5.2	11.4	46.4	(D)	53.4	(D)	4.7	50.4
	Crude petroleum	323	13	1.3	7.8	1.3	3.3	6.1	24.1	(D)	29.0	(D)	2.4	24.9
	Natural gas	115	12	1.1	7.1	.9	2.0	5.3	22.3	8.2	24.5	6.0	2.3	25.5
138	Oil and gas field services	204	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1381	Drilling oil and gas wells	115	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	6.8
1382	Oil and gas exploration services	17	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1389	Oil and gas field services, n.e.c.	71	2	.4	2.4	.3	.7	2.0	6.2	(D)	7.6	(D)	.3	2.4
14	Nonmetallic minerals, except fuels	779	196	14.7	111.0	11.0	24.0	72.5	247.3	(D)	327.7	(D)	14.6	202.1
141	Dimension stone	40	2	.2	1.0	.2	.4	.9	2.1	.7	2.6	.2	.3	1.5
	Dimension stone, n.e.c.	32	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.2
142	Crushed and broken stone	258	110	7.4	55.1	5.8	12.9	39.0	132.1	63.6	179.7	16.2	7.4	109.5
1422	Crushed and broken limestone	171	74	4.9	35.2	3.8	8.7	25.1	84.0	41.3	114.6	10.8	4.7	69.5
1423	Crushed and broken granite	12	2	.2	1.0	.2	.4	.8	3.1	.6	3.6	.4	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	75	34	2.2	19.0	1.8	3.9	13.0	45.1	21.5	61.5	5.0	2.6	38.4
144	Sand and gravel	366	60	4.5	31.5	3.6	7.6	23.4	76.9	34.2	99.5	11.6	4.9	61.4
1442	Construction sand and gravel	333	46	3.6	25.4	2.9	6.2	19.1	64.0	26.3	81.1	9.1	3.5	48.4
	Glass sand	6	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	5.3
	Molding sand	20	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	5.7
	Industrial sand, n.e.c.	8	3	.2	.9	.1	.3	.7	1.9	.7	2.4	.2	.2	2.0
145	Clay and related minerals	57	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1453	Fire clay	33	5	.2	1.5	.2	.5	1.3	5.2	1.2	6.0	.3	.3	3.5
1455	Kaolin and ball clay	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	14	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer minerals	11	8	1.3	13.1	.5	1.0	3.4	19.2	4.8	23.0	1.1	1.3	15.9
1474	Potash, soda, and borate minerals	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1476	Rock salt	4	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1477	Sulfur	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1479	Chemical and fertilizer mining, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1481	Nonmetallic minerals services	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

See footnotes at end of table.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels-Continued													
149	Miscellaneous nonmetallic minerals	39	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1496	Talc, soapstone, and pyrophyllite	7	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1497	Natural abrasives, except sand	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1498	Peat	16	-	.1	.4	.1	.1	.3	.8	(D)	1.2	(D)	.1	.5
1499	Nonmetallic minerals, n.e.c.	7	-	(Z)	.2	-	(Z)	.2	.3	.2	.4	(Z)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	140	28	2.0	10.7	1.9	3.8	10.3	32.7	8.3	40.8	[2] 0.2	2.9	46.2
1411	Dimension stone	22	10	0.7	3.5	0.6	1.3	3.1	4.8	1.5	6.1	0.2	0.7	4.1
142	Crushed and broken stone	38	16	0.9	5.1	0.9	1.8	5.1	17.6	5.1	22.8	(NA)	1.2	21.9
144	Sand and gravel	33	1	0.2	0.8	0.2	0.3	0.8	6.0	0.7	6.7	(NA)	0.4	9.0
145	Clay and related minerals	43	-	0.2	0.8	0.2	0.3	0.8	2.6	0.6	3.2	(NA)	(NA)	(NA)
1492	Gypsum	4	1	0.1	0.5	0.1	0.2	0.5	1.6	0.4	2.0	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Middle Atlantic Division:													
	Establishments.....number..	2,646	2,622	1,026	660	222	144	678	123	493	62	90	828	24
	Employees.....1,000..	54.3	54.4	12.1	7.3	2.6	2.2	32.3	17.1	13.0	2.4	1.7	8.3	.1
	Value added in mining..mil.dol..	791.1	790.9	174.2	89.6	44.7	39.9	545.4	270.3	232.9	42.0	23.4	47.7	.2
10	Metal mining:													
	Establishments.....number..	45	42	6	2	4	-	11	8	3	-	3	22	3
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	(D)	1.1	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	(D)	.6	(D)
1011	Iron ores:													
	Establishments.....number..	9	8	1	-	1	-	5	4	1	-	1	1	1
	Employees.....1,000..	2.9	(D)	(D)	-	(D)	-	2.8	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	42.4	(D)	(D)	-	(D)	-	42.0	(D)	(D)	-	(D)	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	10	9	2	-	2	-	-	-	-	-	-	7	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	.9	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	8	8	1	1	-	-	4	4	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	.8	.8	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	16.4	16.4	-	-	-	(D)	-
104	Gold and silver ores:													
	Establishments.....number..	2	1	1	1	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	9	9	-	-	-	-	-	-	-	-	-	9	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	6	6	1	-	1	-	2	-	2	-	1	2	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
11	Anthracite mining:													
	Establishments.....number..	403	399	282	248	23	11	33	11	10	12	47	37	4
	Employees.....1,000..	7.2	6.8	2.7	1.7	1.0	.1	2.6	1.3	.6	.6	.8	1.1	(Z)
	Value added in mining..mil.dol..	82.1	82.1	34.4	16.4	16.4	1.6	32.0	12.7	7.4	12.0	8.2	7.4	(Z)
111	Anthracite mining:													
	Establishments.....number..	403	399	282	248	23	11	33	11	10	12	47	37	4
	Employees.....1,000..	7.2	6.8	2.7	1.7	1.0	.1	2.6	1.3	.6	.7	.8	1.1	(Z)
	Value added in mining..mil.dol..	82.1	82.1	34.4	16.4	16.4	1.6	32.0	12.7	7.4	12.0	8.2	7.4	(Z)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	747	742	481	406	68	7	177	93	60	24	24	52	5
	Employees.....1,000..	23.1	23.1	6.6	5.6	1.0	.1	14.3	11.8	1.6	.9	.6	1.7	(Z)
	Value added in mining..mil.dol..	332.2	331.9	88.4	71.5	16.1	.9	228.5	186.2	25.0	17.2	10.6	4.5	.3
121	Bituminous coal and lignite mining:													
	Establishments.....number..	747	742	481	406	68	7	177	93	60	24	24	52	5
	Employees.....1,000..	23.1	23.1	6.6	5.6	1.0	.1	14.3	11.8	1.6	.9	.6	1.7	(Z)
	Value added in mining..mil.dol..	332.2	331.9	88.4	71.5	16.1	.9	228.5	186.2	25.0	17.2	10.6	4.5	.3
13	Oil and gas extraction:													
	Establishments.....number..	671	664	125	-	-	125	-	-	-	-	4	535	7
	Employees.....1,000..	(D)	4.1	(D)	-	-	(D)	-	-	-	-	(D)	2.1	(D)
	Value added in mining..mil.dol..	(D)	63.6	(D)	-	-	(D)	-	-	-	-	(D)	26.4	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	464	456	125	-	-	125	-	-	-	-	-	332	7
	Employees.....1,000..	3.1	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	46.3	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
13	Oil and gas extraction–Continued													
1321	Natural gas liquids:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	4	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	203	204	-	-	-	-	-	-	-	-	-	203	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	779	774	132	4	127	1	458	11	420	27	11	173	5
	Employees.....1,000..	14.7	(D)	.8	(D)	.7	(D)	11.4	.9	9.6	.9	(D)	2.3	(D)
	Value added in mining..mil.dol..	247.3	(D)	14.2	(D)	12.2	(D)	220.2	25.9	176.6	17.8	(D)	9.5	(D)
141	Dimension stone:													
	Establishments..... number..	40	40	33	-	33	-	7	-	7	-	-	-	-
	Employees.....1,000..	.2	.2	.1	-	.1	-	.1	-	.1	-	-	-	-
	Value added in mining..mil.dol..	2.1	2.1	1.1	-	1.1	-	1.1	-	1.1	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	258	257	3	1	2	-	235	4	230	1	3	16	1
	Employees.....1,000..	7.4	(D)	(D)	(D)	(D)	-	6.8	(D)	6.6	(D)	(D)	.4	(D)
	Value added in mining..mil.dol..	132.1	(D)	(D)	(D)	(D)	-	129.8	(D)	124.4	(D)	(D)	-	(D)
144	Sand and gravel:													
	Establishments.....number..	366	363	38	-	37	1	185	-	159	26	6	134	3
	Employees.....1,000..	4.5	(D)	.2	-	(D)	(D)	3.3	-	(D)	(D)	(D)	.8	(D)
	Value added in mining..mil.dol..	76.9	(D)	4.8	-	(D)	(D)	62.3	-	(D)	(D)	(D)	7.9	(D)
145	Clay and related minerals:													
	Establishments.....number..	57	56	39	1	38	-	11	1	10	-	-	6	1
	Employees.....1,000..	(D)	.6	.2	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	7.6	5.6	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	(D)
147	Chemical and fertilizer minerals:													
	Establishments.....number..	11	11	-	-	-	-	3	3	-	-	2	6	-
	Employees.....1,000..	1.3	1.3	-	-	-	-	(D)	(D)	-	-	(D)	.7	-
	Value added in mining..mil.dol..	19.2	19.2	-	-	-	-	(D)	(D)	-	-	(D)	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	8	8	-	-	-	-	-	-	-	-	-	8	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	39	39	19	2	17	-	17	3	14	-	-	3	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	.5	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	7.6	(D)	(D)	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Middle Atlantic Division, total	2,646	45	404	747	671	779
0 to 4 employees	1,355	16	208	349	512	270
5 to 9 employees	372	3	74	92	76	127
10 to 19 employees	395	6	53	112	38	186
20 to 49 employees	300	4	39	90	31	136
50 to 99 employees	111	3	18	49	9	32
100 to 249 employees	78	5	10	35	3	25
250 to 499 employees	27	5	1	16	2	3
500 to 999 employees	6	3	-	3	-	-
1,000 to 2,499 employees	2	-	1	1	-	-

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]3,349	608	59.6	455.3	47.6	100.5	339.2	1,212.2
1963	[1]4,753	570	62.2	373.6	50.8	101.8	288.5	1,042.5
1958	4,313	659	74.7	385.4	60.9	114.4	292.9	936.4
1954	4,636	691	81.4	349.4	69.1	131.8	280.0	813.4
Including operations in manufactures:								
1967	3,569	642	62.5	472.4	50.4	105.9	355.1	1,266.6
1963	5,145	617	66.6	395.2	54.9	110.0	308.4	1,106.1
1958	4,662	712	79.0	404.0	65.0	122.1	310.3	994.3
1954[2]	4,912	743	86.3	367.6	73.8	141.2	297.3	353.6
1939[3]	[4]3,989	(NA)	108.0	142.2	98.1	161.5	119.0	316.9
1919[5]	3,788	(NA)	203.0	265.6	190.5	(NA)	238.3	391.9
1909[6]	4,406	(NA)	200.0	128.8	191.3	(NA)	119.2	189.5
1902[6]	[4]17,212	(NA)	135.6	89.8	[7]127.9	(NA)	82.1	142.0
Excluding oil and gas extraction industries:								
1967	2,171	511	51.7	406.9	41.5	89.2	307.2	990.3
1963	2,909	492	54.1	332.2	44.8	90.8	261.6	774.1
1958	2,730	566	62.6	329.9	52.4	99.2	260.4	688.8
1954[2]	2,893	787	68.3	296.2	59.7	114.8	246.3	591.7
1939[8]	[4]2,762	(NA)	89.5	113.5	82.9	134.4	97.4	190.3
1929[9]	2,044	(NA)	128.0	179.4	120.9	(NA)	161.7	285.7
1919[10]	2,082	(NA)	193.0	252.5	182.3	(NA)	228.2	328.0
1909[10]	2,229	(NA)	187.0	120.5	180.8	(NA)	112.7	157.4
1902[10]	[4]3,309	(NA)	127.1	83.4	[7]120.8	(NA)	77.1	118.9

Kind of operation and year	Selected expenses				Value of shipments and receipts[11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12]615.6	([12])	64.1	([12])	1,691.6	200.3	(NA)
1963	276.2	153.1	108.1	111.6	1,487.8	203.7	18.9
1958	245.4	130.0	66.0	73.9	1,324.8	126.9	18.2
1954	198.3	[14]60.6	81.1	99.5	1,094.5	158.4	16.3
Including operations in manufactures:							
1967	[13]692.8	([13])	([13])	([13])	1,758.1	(NA)	(NA)
1963	[15]292.7	153.3	[15]108.2	[16]112.3	1,568.0	[16]204.5	[16]18.7
1958	[15]256.9	130.1	[15]66.3	[16]74.5	1,394.5	[16]127.5	[16]18.3
1954[2]	[15]207.2	[14]60.7	[15]81.2	[16]100.2	1,143.8	[16]159.1	[16]16.6
1939[3]	56.6	(NA)	28.7	(NA)	402.3	(NA)	18.1
1919[5]	80.2	3.3	5.0	(NA)	480.5	(NA)	[17]48.0
1909[6]	36.1	5.7	6.3	(NA)	237.5	(NA)	(NA)
1902[6]	26.3	(NA)	5.0	(NA)	173.3	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	506.5	([13])	([13])	([13])	1,345.6	(NA)	(NA)
1963	[15]237.2	60.6	[15]62.3	[16]92.6	1,074.7	[16]155.1	[16]14.4
1958	[15]262.1	([18])	[15]25.3	[16]53.9	949.2	[16] 80.9	[16]11.2
1954[2]	[15]214.6	([18])	[15]25.7	[16]67.5	809.6	[16] 89.8	[16]10.2
1939[8]	49.6	(NA)	1.2	(NA)	241.0	(NA)	14.6
1929[9]	64.1	(NA)	.7	16.0	350.5	(NA)	24.5
1919[10]	72.0	.1	1.0	(NA)	401.1	(NA)	[17]45.5
1909[10]	27.3	.2	.8	(NA)	185.8	(NA)	(NA)
1902[10]	17.5	(NA)	.2	(NA)	136.6	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1--East North Central--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 854 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes figures for sand and gravel mining operations in manufacturing establishments.

[3]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes figures for sand and gravel operations and for stone quarries operated as parts of cement and lime plants. In 1929, there were 297 such sand and gravel establishments, with products valued at $26,686 thousand, and 31 such stone operations (the value of products of 29 of these stone operations was $4,612 thousand). See also footnote 9.

[6]Includes figures for lime plants producing lime valued at $2,637 thousand and for 2 cement plants. Excludes data for sand and gravel and clay mining operations and stone quarries at 33 cement plants which produced cement valued at $4,904 thousand.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes figures for 6 nonproducing establishments. See also footnote 3.

[9]Excludes figures for common clay and shale operations. In 1939, there were 159 such mines with products valued at $2,137 thousand.

[10]Except for number of establishments, includes data for one oil and gas extraction operation in Michigan. Also, includes for 1919 data for 5 nonproducing oil and gas extraction operations in Ohio, and for 7 such operations in 1909. For 1919 and 1909, see also footnote 4. For 1902, see also footnote 6.

[11]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the approximate magnitude of this duplication as indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[15]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishment, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[16]Excludes figures for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments and, in 1958, excludes figures for dimension stone operations in manufactures.

[17]Excludes purchased electric energy. For "All operations" in 1939 and for "Excluding oil and gas extraction industries" in 1929, the quantity of purchased electric energy amounted to only 3 percent of the total kw.-hrs. equivalent of energy used.

[18]The cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	3,349	608	59.6	455.3	47.6	100.5	339.2	1,212.2	679.7	1,691.6	200.3	62.2	1,042.5
10	Metal mining	56	36	7.9	64.1	5.8	11.6	42.1	171.0	125.4	258.9	37.5	7.6	109.3
1011	Iron ores	29	22	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.7	87.7
1021	Copper ores	7	6	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores	11	5	.2	1.3	.2	.4	1.0	4.2	(D)	6.8	(D)	(NA)	(NA)
	Zinc ores	10	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	398	164	19.4	169.7	16.4	35.5	138.2	392.2	204.1	544.1	52.2	20.4	310.4
121	Bituminous coal and lignite mining	398	164	19.4	169.7	16.4	35.5	138.2	392.2	204.1	544.1	52.2	20.4	310.4
1211	Bituminous coal	383	162	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	20.3	307.8
1213	Bituminous and lignite mining services, n.e.c.	15	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.6
13	Oil and gas extraction	1,398	131	10.8	65.5	8.9	16.7	47.9	276.3	186.3	412.5	50.1	12.5	332.0
131	Crude petroleum and natural gas	817	64	5.9	37.1	4.3	7.6	23.7	212.1	76.7	246.5	42.4	8.0	277.4
	Crude petroleum	747	60	5.5	35.1	4.1	7.2	22.3	198.5	71.5	234.3	35.6	7.6	267.1
	Natural gas	70	4	.4	2.1	.3	.4	1.4	13.6	5.3	12.2	6.7	.4	10.2
1321	Natural gas liquids	6	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	575	67	5.0	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1381	Drilling oil and gas wells	301	34	2.8	15.4	2.7	5.0	13.8	31.6	15.8	43.1	4.4	3.0	31.5
1382	Oil and gas exploration services	33	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1389	Oil and gas field services, n.e.c.	241	33	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1,497	277	21.5	156.1	16.7	36.5	111.0	372.7	163.9	476.1	60.4	21.7	290.8
141	Dimension stone	55	6	.6	2.9	.5	1.0	2.3	5.6	1.3	6.6	.4	.4	3.1
	Dimension limestone	22	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.9
	Dimension stone, n.e.c.	28	-	.1	.5	.1	.2	.4	.8	.2	.9	.1	(D)	(D)
142	Crushed and broken stone	431	129	9.0	64.1	7.4	16.5	49.4	166.6	75.9	216.2	26.3	9.3	130.4
1422	Crushed and broken limestone	391	220	8.4	59.2	7.2	15.9	47.5	159.3	71.2	204.9	25.6	8.7	121.4
1423	Crushed and broken granite	2	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	38	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	9.0
144	Sand and gravel	889	112	8.6	60.9	6.8	14.6	46.0	150.1	64.2	190.3	23.9	9.0	123.6
1442	Construction sand and gravel	841	95	7.3	51.1	5.8	12.4	39.3	124.9	52.7	157.1	20.5	(NA)	(NA)
	Glass sand	7	5	.3	2.0	.2	.5	1.7	5.6	2.4	7.4	.7	(NA)	(NA)
	Molding sand	30	10	.5	3.8	.4	.9	2.7	10.0	6.1	14.3	1.9	(NA)	(NA)
	Industrial sand, n.e.c.	11	2	.5	3.9	.3	.8	2.4	9.5	3.0	11.5	.9	(NA)	(NA)
145	Clay and related minerals	44	13	.8	5.9	.6	1.3	4.1	10.5	7.8	15.0	3.1	.6	7.1
1452	Bentonite	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1453	Fire clay	21	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	19	7	.4	2.8	.3	.7	2.5	5.9	5.8	9.1	2.5	.3	3.4
147	Chemical and fertilizer minerals	19	8	1.9	18.5	.9	2.1	6.4	30.3	10.6	35.9	5.0	(NA)	(NA)
1473	Fluorspar	13	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	18	1	.1	.8	.1	.2	.7	1.3	.7	1.7	.3	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	41	8	.5	3.1	.4	.9	2.0	8.4	3.3	10.4	1.4	.5	7.8
1492	Gypsum	3	2	.1	.9	.1	.2	.7	3.1	(D)	3.8	(D)	.1	3.3
1497	Natural abraxives, except sand	4	2	CC	(D)	(Z)	.1	.2	.8	1.3	1.0	1.0	(D)	(D)
1498	Peat	24	3	.2	1.2	.2	.6	1.1	4.4	(D)	5.4	(D)	(NA)	(NA)
1499	Nonmetallic minerals, n.e.c.	9	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	220	34	2.9	17.0	2.8	5.5	15.9	54.4	13.0	66.5	[2]1.0	4.4	63.6
1411	Dimension stone	24	12	1.3	7.4	1.1	2.2	6.2	12.9	3.6	15.6	1.0	2.0	13.7
142	Crushed and broken stone	38	14	0.7	4.7	0.7	1.4	4.7	21.6	5.1	26.7	(NA)	0.9	19.6
144	Sand and gravel	61	5	0.5	2.6	0.5	1.0	2.6	10.5	1.6	12.1	(NA)	0.5	11.9
145	Clay and related minerals	91	-	0.3	1.6	0.3	0.6	1.6	4.7	2.3	6.9	(NA)	0.8	13.3
1492	Gypsum	6	3	0.1	0.8	0.1	0.3	0.8	4.7	0.5	5.2	(NA)	0.1	5.0

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and emploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2]Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	East North Central division:													
	Establishments.....number..	3,349	3,319	724	168	192	364	1,061	73	919	69	49	1,485	30
	Employees.....1,000..	59.6	59.5	11.0	4.1	1.9	5.0	35.4	10.8	22.8	1.9	1.1	11.8	.2
	Value added in mining..mil.dol..	1,212.2	1,212.0	312.9	61.1	40.5	211.3	776.9	185.1	549.4	42.6	27.0	95.1	.2
10	Metal mining:													
	Establishments.....number..	56	56	24	15	8	-	9	3	5	1	8	15	-
	Employees.....1,000..	7.9	7.9	2.4	2.3	.1	-	3.7	(D)	(D)	(D)	.5	1.3	-
	Value added in mining..mil.dol..	171.0	171.0	44.8	40.2	4.6	-	110.0	(D)	(D)	(D)	14.2	2.0	-
1011	Iron ores:													
	Establishments.....number..	29	29	14	7	7	-	4	-	4	-	3	8	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	1.9	-	1.9	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	84.3	-	84.3	-	(D)	(D)	-
1021	Copper ores:													
	Establishments.....number..	7	7	2	1	1	-	3	2	1	-	1	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	(D)	(D)	-
103	Lead and zinc ores:													
	Establishments.....number..	11	11	7	7	-	-	1	1	-	-	3	-	-
	Employees.....1,000..	.2	.2	.1	.1	-	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining..mil.dol..	4.2	4.2	1.1	1.1	-	-	(D)	(D)	-	-	(D)	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	1	-	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
1081	Metal mining services:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	3	3	1	-	1	-	-	-	-	-	1	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	398	396	191	147	36	8	159	49	90	20	6	40	2
	Employees.....1,000..	19.4	(D)	3.0	(D)	.8	(D)	14.7	(D)	(D)	(D)	(D)	1.4	(D)
	Value added in mining..mil.dol..	392.2	(D)	53.3	(D)	22.4	(D)	332.3	(D)	(D)	(D)	(D)	2.3	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	398	396	191	147	36	8	159	49	90	20	6	40	2
	Employees.....1,000..	19.4	(D)	3.0	(D)	.8	(D)	14.7	(D)	(D)	(D)	(D)	1.4	(D)
	Value added in mining..mil.dol..	392.2	(D)	53.3	(D)	22.4	(D)	332.3	(D)	(D)	(D)	(D)	2.3	(D)
13	Oil and gas extraction:													
	Establishments.....number..	1,398	1,381	347	-	-	347	-	-	-	-	6	1,028	17
	Employees.....1,000..	10.8	10.7	4.6	-	-	4.6	-	-	-	-	(D)	(D)	.1
	Value added in mining..mil.dol..	276.3	276.8	199.6	-	-	199.6	-	-	-	-	(D)	(D)	.5
131	Crude petroleum and natural gas:													
	Establishments.....number..	817	800	347	-	-	347	-	-	-	-	-	453	17
	Employees.....1,000..	5.8	5.7	4.6	-	-	4.6	-	-	-	-	-	1.4	.1
	Value added in mining..mil.dol..	212.1	212.6	199.6	-	-	199.6	-	-	-	-	-	13.0	-.5
1321	Natural gas liquids:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	6	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	575	575	-	-	-	-	-	-	-	-	-	575	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	1,497	1,486	162	6	147	9	893	21	824	48	29	402	11
	Employees.....1,000..	21.5	(D)	1.0	(D)	.9	(D)	17.1	1.3	14.9	.8	(D)	3.0	(D)
	Value added in mining..mil.dol..	372.7	(D)	15.2	(D)	13.4	(D)	334.7	34.2	285.0	15.5	(D)	17.1	(D)
141	Dimension stone:													
	Establishments.....number..	55	55	44	-	44	-	10	-	10	-	-	1	-
	Employees.....1,000..	.6	.6	.4	-	.4	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	5.6	5.6	3.4	-	3.4	-	(D)	-	(D)	-	-	(D)	-
142	Crushed and broken stone:													
	Establishments.....number..	431	427	7	-	7	-	397	13	379	5	10	13	4
	Employees.....1,000..	9.0	(D)	.2	-	.2	-	8.4	.4	7.8	.3	(D)	.3	(D)
	Value added in mining..mil.dol..	166.6	(D)	2.8	-	2.8	-	162.2	5.5	153.4	3.3	(D)	-	(D)
144	Sand and gravel:													
	Establishments.....number..	889	883	63	-	55	8	443	-	400	43	16	361	6
	Employees.....1,000..	8.6	8.5	.4	-	.3	.1	6.6	-	6.1	.5	.1	1.4	.1
	Value added in mining..mil.dol..	150.1	149.8	6.8	-	5.2	1.6	125.5	-	113.2	12.3	1.6	15.9	.2
145	Clay and related minerals:													
	Establishments.....number..	44	44	26	-	26	-	15	-	15	-	-	3	-
	Employees.....1,000..	.8	.8	.3	-	.3	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	10.5	10.5	1.6	-	1.6	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	19	18	7	6	1	-	6	6	-	-	3	2	1
	Employees.....1,000..	1.9	(D)	(Z)	(D)	(D)	-	(D)	(D)	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	30.3	(D)	.1	(D)	(D)	-	(D)	(D)	-	-	(D)	(D)	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	18	18	-	-	-	-	-	-	-	-	-	18	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining..mil.dol..	1.3	1.3	-	-	-	-	-	-	-	-	-	1.3	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	41	41	15	-	14	1	22	2	20	-	-	4	-
	Employees.....1,000..	.5	.5	(Z)	-	(D)	(D)	.3	(D)	(D)	-	-	.1	-
	Value added in mining..mil.dol..	8.4	8.4	.5	-	(D)	(D)	7.9	(D)	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
East North Central Division, total...	3,349	56	-	398	1,398	1,497
0 to 4 employees.....	1,690	12	-	131	915	632
5 to 9 employees.....	545	5	-	48	212	280
10 to 19 employees.....	505	3	-	55	139	308
20 to 49 employees.....	390	9	-	69	101	211
50 to 99 employees.....	99	5	-	33	22	39
100 to 249 employees.....	89	12	-	49	6	22
250 to 499 employees.....	23	7	-	10	2	4
500 to 999 employees.....	7	2	-	3	1	1
1,000 to 2,499 employees.....	1	1	-	-	-	-

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]2,463	385	40.9	278.5	32.1	65.8	201.2	1,137.6
1963	[1]3,551	393	44.1	249.8	34.9	70.3	180.9	1,069.3
1958	3,221	452	50.9	253.1	38.6	76.4	174.8	918.7
1954	3,320	470	51.6	213.4	43.2	87.0	167.6	[2]785.8
Including operations in manufactures:								
1967	2,593	409	43.0	291.0	34.0	69.9	212.1	1,179.1
1963	3,767	422	46.4	260.5	36.9	74.7	190.4	1,106.5
1958	3,384	484	53.6	264.6	41.1	81.6	185.0	956.5
1954[3]	3,435	499	54.2	223.3	45.6	92.4	176.7	[2]813.2
1939[4]	[5]2,242	(NA)	44.8	59.3	39.6	70.3	46.6	213.7
1919[6]	1,754	(NA)	67.5	94.9	62.7	(NA)	84.9	204.8
1909[6]	2,477	(NA)	79.5	55.4	75.8	(NA)	51.0	104.3
1902[7]	[5]2,596	(NA)	52.3	35.3	[8]48.6	(NA)	32.0	62.3
Excluding oil and gas extraction industries:								
1967	1,358	253	32.0	223.0	24.9	51.7	159.9	671.0
1963	1,891	249	31.8	183.9	25.4	51.5	133.5	569.6
1958	1,712	291	36.7	184.2	28.0	55.4	128.4	507.8
1954[3]	1,845	287	37.1	152.8	31.4	64.1	121.3	(NA)
1939[9]	[5]1,466	(NA)	34.2	43.2	30.9	56.3	35.2	156.3
1929[10]	1,248	(NA)	45.9	65.3	42.4	(NA)	56.8	196.7
1919[11]	1,130	(NA)	60.0	83.1	56.3	(NA)	75.3	174.0
1909[12]	2,244	(NA)	78.7	54.6	74.7	(NA)	50.5	99.0
1902[13]	[5]2,513	(NA)	51.9	35.0	[8]48.4	(NA)	31.8	61.9

Kind of operation and year	Selected expenses				Value of shipments and receipts[14]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[15]579.4	([15])	[15]112.2	([15])	1,617.4	211.7	(NA)
1963	242.0	160.4	107.9	73.7	1,476.7	176.6	28.7
1958	225.2	93.1	106.2	69.1	1,267.2	145.1	23.6
1954	174.2	[16]10.3	130.8	104.6	1,006.5	199.1	18.8
Including operations in manufactures:							
1967	[17]700.2	([17])	([17])	([17])	1,667.0	(NA)	(NA)
1963	[18]250.2	[18]161.7	[18]107.9	[19]74.1	1,523.4	[19]177.0	[19]28.7
1958	[18]235.1	[18]93.1	[18]106.4	[19]69.3	1,315.2	[19]145.3	[19]23.7
1954[3]	[18]182.5	[16]11.3	[18]131.0	[19]104.9	[21]1,043.4	[19]199.5	[19]18.7
1939[4]	26.3	(NA)	12.9	(NA)	253.0	(NA)	7.3
1919[6]	68.2	.3	6.8	(NA)	280.1	(NA)	[20]17.0
1909[6]	21.1	1.9	2.9	(NA)	130.3	(NA)	(NA)
1902[7]	10.4	(NA)	.9	(NA)	73.6	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[17]400.4	([17])	([17])	([17])	932.4	(NA)	(NA)
1963	[21]220.4	([21])	[18]20.6	[19]43.2	782.6	[19]71.1	[19]14.3
1958	[21]170.5	([21])	[18]18.7	[19]27.0	680.5	[19]43.5	[19]13.3
1954[3]	(NA)	(NA)	[18]36.9	[19]42.0	[2]572.2	[19]80.5	[19]6.5
1939[9]	21.4	(NA)	.5	(NA)	178.3	(NA)	3.9
1929[10]	33.4	(NA)	1.9	6.4	232.0	(NA)	8.3
1919[11]	34.8	(Z)	2.8	(NA)	211.6	(NA)	[20]13.4
1909[12]	20.2	1.7	2.6	(NA)	123.6	(NA)	(NA)
1902[13]	10.0	(NA)	.7	(NA)	72.5	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--West North Central--Continued

(D) Withheld to avoid disclosing figures for individual companies. - Represents zero. (Z) Less than $50 thousand or 50 employees.
(NA) Not available.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the Census. In 1963, there were 626 single unit establishments without paid employees in this State. In the 1963 Census establishments without paid employees for mining as a whole accounted for approxomately 3 percent of value added.

[2]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas. Excludes data for the Uranium-Radium-Vanadium Ores Industries.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand and gravel operations and for stone quarries operated as parts of cement and lime plants. For 1929, there were 144 such sand and gravel establishments, with products value at $11,555 thousand and 20 such operations (the value of products of 18 of these stone quarries was $3,342 thousand). See also footnote 9.

[7]Includes data for lime plants producing lime valued at $620 thousand and for 7 cement plants. Excludes data for sand and gravel and clay mining operations.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Except for number of establishments, includes data for 23 nonproducing operations in Missouri and South Dakota. See also footnote 4.

[10]Excludes data for common clay and shale operations. In 1939, there were 60 such mines with products of 59 of these mines amounting to $633 thousand.

[11]Except for number of establishments, includes data for one establishment in the crude petroleum and natural gas industry in South Dakota. See also footnote 6.

[12]Except for number of establishments, includes data for 4 establishments in the crude petroleum and natural gas industry in North Dakota and South Dakota. See also footnote 6.

[13]Except for number of establishments, includes data for 2 oil field operations in Missouri. See also footnote 20.

[14]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[15]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[16]Excludes data for natural gas processed at natural gas liquids plants. See also footnote 2.

[17]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[18]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work, and for dimension stone operations in manufactures in 1958, the cost of minerals received for preparation, is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[19]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments and for dimension stone mining operations in manufactures, excludes data for Iowa and Nebraska.

[20]Excludes purchased electric energy. For "All operations" in 1939 and for "Excluding oil and gas extraction industries" in 1929, the quantity of purchased electric energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used.

[21]The cost of minerals received for preparation is included with the cost of supplies, purchased fuels and energy. See also footnote 18.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	2,463	385	40.9	278.5	32.1	65.8	201.2	1,137.6	691.6	1,617.4	211.7	44.1	1,069.3
10	Metal mining	106	49	16.1	120.8	13.0	26.2	90.4	451.4	297.3	637.2	111.6	15.9	(NA)
1011	Iron ores	54	38	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	12.0	344.1
1021	Copper ores	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	15	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lead ores	11	6	1.8	12.1	1.4	2.8	8.8	13.2	41.2	22.9	31.4	(D)	(D)
	Zinc ores	4	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	16.4
1042	Lode gold	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	16.4
1081	Metal mining services	21	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.9
12	Bituminous coal and lignite mining	83	17	2.0	12.5	1.0	2.1	7.2	25.0	12.1	34.3	2.9	2.0	(NA)
121	Bituminous coal and lignite mining	83	17	2.0	12.5	1.0	2.1	7.2	25.0	12.1	34.3	2.9	(NA)	(NA)
1211	Bituminous coal	48	12	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	17.9
1212	Lignite	33	5	.3	2.1	.3	.6	1.6	5.5	5.3	9.4	1.4	(NA)	(NA)
13	Oil and gas extraction	1,235	156	11.0	68.0	9.1	18.2	52.2	508.1	299.8	734.6	73.3	14.6	536.9
131	Crude petroleum and natural gas	682	86	5.9	37.0	4.5	8.7	25.5	394.6	124.3	459.7	59.2	8.5	455.9
	Crude petroleum	627	79	5.3	32.5	4.1	7.8	22.4	298.2	112.4	357.3	53.3	7.6	380.8
	Natural gas	55	7	0.6	4.5	.4	.9	3.1	96.4	11.9	102.4	5.9	.9	75.1
1321	Natural gas liquids	27	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	526	63	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1381	Drilling oil and gas wells	164	21	1.8	10.8	1.6	3.3	9.7	22.3	13.8	33.0	3.0	2.8	33.4
1382	Oil and gas exploration services	24	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.1
1389	Oil and gas field services, n.e.c.	338	41	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1,039	163	10.9	67.3	9.1	19.8	167.5	153.0	82.4	211.4	23.9	11.6	131.4
141	Dimension stone	21	-	.1	.5	.1	.2	.4	.9	.3	1.1	.1	.2	1.4
	Dimension granite	10	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	406	99	5.7	36.6	4.8	10.8	143.7	81.3	47.5	114.4	14.5	5.7	64.6
1422	Crushed and broken limestone	363	88	5.1	33.0	4.3	9.9	26.1	74.0	44.0	104.7	13.4	5.4	62.5
1423	Crushed and broken granite	11	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.7
1429	Crushed and broken stone, n.e.c.	32	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.4
144	Sand and gravel	521	46	3.8	23.2	3.2	6.7	18.5	50.6	26.9	69.6	7.9	4.6	50.3
1442	Construction sand and gravel	511	42	3.6	21.8	3.0	6.3	17.5	46.8	24.8	64.4	7.3	4.4	47.1
	Glass sand	3	2	.1	.5	.1	.2	.4	.8	.7	1.3	.2	.1	1.2
	Industrial sand, n.e.c.	4	2	.1	.7	.1	.2	.6	2.6	1.2	3.3	.3	.1	2.1
145	Clay and related minerals	43	6	.4	2.5	.3	.7	1.9	10.1	3.9	13.3	.7	.4	6.8
1452	Bentonite	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1453	Fire clay	19	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.6
1459	Clay and related minerals, n.e.c.	20	2	.2	1.0	.1	.3	.8	2.0	1.4	3.2	.2	.1	1.2

See footnotes at end of table.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels--Continued													
147	Chemical and fertilizer minerals	15	8	.6	3.2	.5	1.0	2.3	7.4	2.9	9.8	.5	(NA)	(NA)
1472	Barite	10	5	.5	2.0	.4	.8	1.8	5.6	2.4	7.7	.3	.4	3.8
1476	Rock salt	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1481	Nonmetallic minerals services	19	-	.1	.3	.1	.1	.3	.7	.4	1.0	.2	.1	1.4
149	Miscellaneous nonmetallic minerals	14	4	.2	1.0	.1	.2	.4	1.9	.5	2.3	.1	.1	(D)
1497	Natural abrasives, except sand	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1498	Peat	4	1	.1	.3	(Z)	.1	.2	.3	(D)	.5	(D)	.1	.4

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	130	24	2.1	12.5	1.9	4.1	10.9	41.5	8.6	49.6	[2]0.5	2.3	37.2
1411	Dimension stone	12	10	1.1	6.6	0.9	2.0	5.0	11.9	4.1	15.4	0.5	1.1	8.6
	Dimension granite subindustry	4	4	0.4	2.2	0.3	0.7	1.6	5.3	1.2	6.3	0.1	(NA)	(NA)
142	Crushed and broken stone	26	9	0.6	3.5	0.6	1.1	3.5	18.3	2.8	21.1	(NA)	0.7	14.7
144	Sand and gravel	50	4	0.3	1.7	0.3	0.6	1.7	3.8	0.6	4.4	(NA)	0.1	3.5
145	Clay and related minerals	35	-	0.1	0.4	0.1	0.2	0.4	1.7	0.8	2.5	(NA)	0.3	4.1
1492	Gypsum	7	1	0.1	0.4	0.1	0.2	0.4	5.9	0.3	6.2	(NA)	0.1	6.4

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	West North Central Division:													
	Establishments.....number..	2,463	2,434	593	35	143	415	699	36	606	58	40	1,102	29
	Employees.....1,000..	40.9	40.8	8.3	.2	2.7	5.4	21.9	5.2	15.8	.8	1.8	8.8	.2
	Value added in mining..mil.dol..	1,137.6	1,138.5	428.5	2.5	41.9	384.1	498.2	60.3	427.1	10.6	122.6	90.1	-.9
10	Metal mining:													
	Establishments.....number..	106	100	27	13	14	-	38	7	30	1	8	27	6
	Employees.....1,000..	16.1	(D)	2.1	.1	2.0	-	11.9	4.7	(D)	(D)	(D)	.7	(D)
	Value added in mining..mil.dol..	451.4	(D)	31.1	1.9	29.3	-	333.9	55.8	(D)	(D)	(D)	8.1	(D)
1011	Iron ores:													
	Establishments.....number..	53	53	10	1	9	-	31	1	30	-	6	6	-
	Employees.....1,000..	(D)	(D)	2.0	(D)	(D)	-	8.1	(D)	(D)	-	1.4	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	30.3	(D)	(D)	-	295.2	(D)	(D)	-	70.0	(D)	-
1021	Copper ores:													
	Establishments.....number..	5	4	4	-	4	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	.1	(Z)	-	(Z)	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	5.3	.2	-	.2	-	-	-	-	-	-	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	15	11	7	7	-	-	5	5	-	-	-	-	4
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	.4	.4	-	-	(D)	(D)	-	-	-	-	-
104	Gold and silver ores:													
	Establishments.....number..	2	2	1	1	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	1	-	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
1081	Metal mining services:													
	Establishments.....number..	21	21	-	-	-	-	-	-	-	-	-	21	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	8	7	5	4	1	-	-	-	-	-	2	-	1
	Employees.....1,000..	(D)	(Z)	(D)	(D)	(D)	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	.3	(D)	(D)	(D)	-	-	-	-	-	(D)	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	83	83	44	22	22	-	33	4	29	-	-	6	-
	Employees.....1,000..	2.0	2.0	.1	.1	(Z)	-	1.0	.1	.9	-	-	.9	-
	Value added in mining..mil.dol..	25.0	25.0	1.1	.6	.5	-	23.9	1.2	22.7	-	-	(Z)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	83	83	44	22	22	-	33	4	29	-	-	6	-
	Employees.....1,000..	2.0	2.0	.1	.1	(Z)	-	1.0	.1	.9	-	-	.9	-
	Value added in mining..mil.dol..	25.0	25.0	1.1	.6	.5	-	23.9	1.2	22.7	-	-	(Z)	-
13	Oil and gas extraction:													
	Establishments.....number..	1,235	1,215	411	-	-	411	-	-	-	-	26	778	20
	Employees.....1,000..	11.9	11.9	5.3	-	-	5.3	-	-	-	-	.4	6.2	(Z)
	Value added in mining..mil.dol..	508.1	508.7	383.0	-	-	383.0	-	-	-	-	53.8	71.9	-.6
131	Crude petroleum and natural gas:													
	Establishments.....number..	682	663	411	-	-	411	-	-	-	-	-	252	19
	Employees.....1,000..	6.8	(D)	5.3	-	-	5.3	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	394.6	(D)	383.0	-	-	383.0	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	27	26	-	-	-	-	-	-	-	-	26	-	1
	Employees.....1,000..	(D)	.4	-	-	-	-	-	-	-	-	.4	-	(D)
	Value added in mining..mil.dol..	(D)	53.8	-	-	-	-	-	-	-	-	53.8	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	526	526	-	-	-	-	-	-	-	-	-	526	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)		-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	1,039	1,036	111	-	107	4	629	25	547	57	6	290	3
	Employees.....1,000..	10.9	(D)	.7	-	.6	.1	9.1	.5	(D)	(D)	(D)	1.1	(D)
	Value added in mining..mil.dol..	153.0	(D)	13.2	-	12.1	1.1	129.5	6.9	(D)	(D)	(D)	10.0	(D)
141	Dimension stone:													
	Establishments.....number..	21	21	19	-	19	-	1	1	-	-	-	1	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining..mil.dol..	.9	.9	(D)	-	(D)	-	(D)	(D)	-	-	-	(D)	-
142	Crushed and broken stone:													
	Establishments.....number..	406	403	25	-	24	1	368	22	342	4	3	7	3
	Employees.....1,000..	5.7	(D)	.2	-	(D)	(D)	5.2	(D)	4.8	(D)	(D)	.2	(D)
	Value added in mining..mil.dol..	81.3	(D)	3.6	-	(D)	(D)	5	(D)	70.7	(D)	(D)	-	(D)
144	Sand and gravel:													
	Establishments.....number..	521	521	28	-	25	3	232	-	180	52	3	258	-
	Employees.....1,000..	3.8	3.8	(D)	-	(D)	(D)	2.8	-	2.2	.6	(D)	.7	-
	Value added in mining..mil.dol..	50.6	50.6	(D)	-	(D)	(D)	38.7	-	29.6	9.2	(D)	9.2	-
145	Clay and related minerals:													
	Establishments.....number..	43	43	31	-	31	-	11	-	11	-	-	1	-
	Employees.....1,000..	.4	.4	.1	-	.1	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	10.1	10.1	5.8	-	5.8	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	15	15	3	-	3	-	10	3	7	1	-	2	-
	Employees.....1,000..	.6	.6	(D)	-	(D)	-	.6	(D)	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	7.4	7.4	(D)	-	(D)	-	7.3	(D)	(D)	(D)	-	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	19	19	-	-	-	-	-	-	-	-	-	19	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining..mil.dol..	.7	.7	-	-	-	-	-	-	-	-	-	.7	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	14	14	5	-	5	-	7	-	7	-	-	2	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	(Z)	-	(Z)	-	-	(D)	-
	Value added in mining..mil.dol..	1.9	1.9	(D)	-	(D)	-	1.5	-	1.5	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
West North Central Division, total	2,463	106	-	83	1,235	1,039
1 to 4 employees	1,284	39	-	42	732	471
5 to 9 employees	388	9	-	13	177	189
10 to 19 employees	406	9	-	11	170	216
20 to 49 employees	282	11	-	9	120	142
50 to 99 employees	57	9	-	6	26	16
100 to 249 employees	30	17	-	1	7	5
250 to 499 employees	6	4	-	-	2	-
500 to 999 employees	3	2	-	-	1	-
1,000 to 2,499 employees	6	5	-	1	-	-
2,500 employees and over	1	1	-	-	-	-

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] 3,259	762	80.2	542.2	69.5	139.9	447.9	1,335.8
1963	[1] 4,447	802	82.2	434.3	72.3	140.8	366.2	1,011.6
1958	4,701	899	106.1	478.2	92.4	161.8	399.5	940.0
1954	4,227	808	109.0	421.3	98.6	176.1	367.0	[2] 761.4
Including operations in manufactures:								
1967	3,387	796	83.0	554.9	72.2	145.2	459.6	1,378.5
1963	4,704	837	85.4	447.2	75.3	146.7	378.0	1,045.2
1958	4,875	930	108.8	487.9	95.0	166.8	408.3	969.8
1954 [3]	4,380	843	111.8	429.6	101.3	181.6	374.6	[2] 782.8
1939 [4]	[5] 2,141	(NA)	141.9	173.2	134.7	211.4	157.9	243.3
1919 [6]	2,296	(NA)	139.7	168.3	129.8	(NA)	149.4	280.8
1909 [6]	1,532	(NA)	114.5	55.8	109.3	(NA)	50.0	81.0
1902 [7]	[5] 6,174	(NA)	61.2	33.2	[8] 56.7	(NA)	29.1	53.7
Excluding oil and gas extraction industries:								
1967	2,598	751	78.5	529.2	68.8	138.4	441.9	1,261.6
1963	3,623	798	80.4	424.1	71.2	138.5	360.6	967.4
1958	3,840	885	103.4	467.9	90.5	158.0	392.2	914.6
1954 [3]	3,408	793	105.9	410.5	96.1	172.2	358.9	[2] 720.5
1939 [9]	[5] 1,590	(NA)	134.5	164.1	128.2	200.3	150.4	220.3
1929 [10]	1,349	(NA)	139.4	175.5	132.1	(NA)	157.9	245.5
1919 [6]	1,540	(NA)	126.1	153.3	117.5	(NA)	137.0	206.1
1909 [6]	1,082	(NA)	107.0	50.6	102.5	(NA)	45.6	65.5
1902 [7]	[5] 1,675	(NA)	56.3	29.4	[8] 52.3	(NA)	25.9	42.5

Kind of operation and year	Selected expenses				Value of shipments and receipts [11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resales, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12] 821.0	([12])	82.8	([12])	1,987.6	251.2	(NA)
1963	307.7	247.4	55.3	89.2	1,574.9	136.2	19.7
1958	[14] 281.8	[14] 194.6	43.2	93.6	1,411.4	141.8	14.7
1954	239.0	[15] 102.1	39.3	75.4	[2] 1,118.4	98.8	13.0
Including operations in manufactures:							
1967	[13] 913.7	([13])	([13])	([13])	2,039.5	(NA)	(NA)
1963	[16] 318.9	248.2	[16] 55.4	[17] 89.8	1,620.5	[17] 136.9	[17] 19.7
1958	[16] 287.8	[14] 194.8	[16] 43.3	[17] 94.0	1,447.4	[17] 142.2	[17] 14.7
1954 [3]	[16] 243.9	[15] 102.1	[16] 39.3	[17] 75.5	[2] 1,144.7	[17] 99.0	[17] 13.0
1939 [4]	49.0	(NA)	2.7	(NA)	295.0	(NA)	8.9
1919 [6]	60.9	5.9	4.5	(NA)	352.0	(NA)	[18] 17.8
1909 [6]	18.3	.9	5.0	(NA)	105.7	(NA)	(NA)
1902 [7]	12.0	(NA)	5.4	(NA)	71.1	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[13] 792.1	([13])	([13])	([13])	1,827.6	(NA)	(NA)
1963	[16] 300.5	144.8	[16] 32.0	[17] 83.8	1,421.5	[17] 107.0	[17] 16.9
1958	[16] 272.6	[14] 172.5	[16] 33.8	[17] 85.7	1,358.1	[17] 121.1	[17] 11.4
1954 [3]	[16] 231.6	[15] 100.0	[16] 28.7	[17] 70.0	[2] 1,068.6	[17] 82.2	[17] 10.8
1939 [9]	46.2	(NA)	.7	(NA)	267.2	(NA)	6.9
1929 [10]	51.1	(NA)	.7	11.1	297.3	(NA)	9.2
1919 [6]	45.5	(Z)	.9	(NA)	252.5	(NA)	[18] 14.1
1909 [6]	11.5	-	.5	(NA)	77.5	(NA)	(NA)
1902 [7]	6.0	(NA)	.3	(NA)	48.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--South Atlantic Division--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 565 single unit establishments without paid employees in this division. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand and gravel operations and for stone quarries operated as parts of cement and lime plants. For 1929, there were 61 such sand and gravel establishments, with products of 55 of these establishments valued at $7,086 thousand, and 29 such stone operations (the value of products of 19 of these stone quarries was $3,180 thousand). See also footnote 10.

[7]Includes data for lime plants producing lime valued at $861 thousand and for 3 cement plants. Excludes data for sand and gravel and clay mining operations and for stone quarries at 7 cement plants with cement produced valued at $786 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Includes data for one nonproducing operation in the Crude Petroleum and Natural Gas Industry in Florida. See also footnote 4.

[10]Excludes data for common clay and shale operations. In 1939 there were 90 such mines (the value of products of 89 of these stone operations $887 thousand).

[11]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]The cost of minerals received for preparation in South Carolina is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas. See also footnote 2.

[16]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For 1958, see also footnote 14.

[17]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[18]Excludes purchased electric energy. For "All operations" in 1939 and for "Excluding oil and gas extraction industries" in 1929, the quantity of purchased electric energy amounted to 9 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	3,259	762	80.2	542.2	69.5	139.9	447.9	1,335.1	903.8	1,987.6	251.2	82.2	1,011.6
10	Metal mining	30	7	.7	4.2	.5	1.0	2.9	14.4	6.9	19.9	1.4	1.1	13.9
1011	Iron ores	11	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
1081	Metal mining services	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	5	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	8.1
1093	Titanium ores	4	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	1,631	389	50.3	368.0	45.1	85.8	318.1	754.9	(D)	1,110.6	(D)	53.5	608.6
121	Bituminous coal and lignite mining	1,631	389	50.3	368.0	45.1	85.8	318.1	754.9	(D)	1,110.6	(D)	53.5	608.6
1211	Bituminous coal	1,585	380	49.6	362.1	44.4	84.3	312.5	742.7	(D)	1,093.6	(D)	53.1	602.8
1212	Lignite	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1213	Bituminous and lignite services, n.e.c.	45	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	5.8
13	Oil and gas extraction	789	45	4.5	25.7	3.4	6.8	17.7	112.0	124.7	207.9	28.7	5.0	77.8
131	Crude petroleum and natural gas	582	20	2.9	16.6	2.1	4.0	9.9	71.7	28.3	76.4	23.7	(D)	(D)
	Crude petroleum	286	8	1.2	6.5	.8	1.6	3.6	12.2	10.6	16.7	6.2	(D)	(D)
	Natural gas	296	12	1.7	10.0	1.3	2.3	6.3	59.5	17.6	59.7	17.5	(D)	(D)
1321	Natural gas liquids	12	6	.3	1.7	.3	.5	1.6	24.1	(D)	110.5	(D)	(D)	(D)
138	Oil and gas field services	195	19	1.3	7.4	1.1	2.3	6.2	16.1	(D)	21.2	(D)	(D)	(D)
1381	Drilling oil and gas wells	110	12	.8	4.3	.7	1.4	3.7	8.3	4.3	10.9	1.6	1.1	10.8
1382	Oil and gas exploration services	21	3	.1	.8	.1	.3	.7	1.5	(D)	1.9	(D)	(D)	(D)
1389	Oil and gas field services, n.e.c.	64	4	.4	2.3	.3	.7	1.8	6.3	2.7	8.4	.6	(D)	(D)
14	Nonmetallic minerals, except fuels	809	321	24.9	144.3	20.5	46.3	109.1	453.8	288.8	649.2	92.9	22.5	311.4
141	Dimension stone	31	3	.3	1.2	.3	.5	1.0	2.3	.8	2.9	.2	.3	1.4
	Dimension granite	17	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	.7
	Dimension stone, n.e.c.	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	336	181	9.4	52.4	8.1	18.7	41.0	140.9	86.4	202.7	24.7	9.0	119.7
1422	Crushed and broken limestone	177	86	4.6	26.5	3.9	9.0	20.2	61.8	37.5	90.3	9.1	4.7	58.6
1423	Crushed and broken granite	106	71	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	53	24	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	245	50	3.7	21.7	3.0	6.9	15.8	50.1	25.6	67.0	8.6	4.4	51.9
1442	Construction sand and gravel	229	41	3.0	17.2	2.5	5.8	13.1	42.6	21.5	56.7	7.4	(NA)	(NA)
	Glass sand	9	8	.6	4.1	.4	1.0	2.5	6.6	3.3	9.0	1.0	(NA)	(NA)
	Industrial sand, n.e.c.	6	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay and belated minerals	73	45	4.8	26.9	4.0	8.7	21.0	81.1	47.5	113.1	15.5	4.2	59.3
1454	Fuller's earth	10	8	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1455	Kaolin and ball clay	35	21	3.0	18.2	2.4	5.4	14.0	56.3	(D)	76.0	(D)	(D)	(D)
1456	Feldspar	7	6	.3	1.5	.3	.6	1.2	3.8	2.5	6.1	.3	(D)	(D)
1459	Clay and related minerals, n.e.c.	18	9	.5	2.7	.4	.9	2.1	7.0	3.6	10.1	.4	.5	4.4
147	Chemical and fertilizer minerals	42	28	5.5	36.2	4.1	9.3	25.6	160.0	120.4	240.1	40.2	(NA)	(NA)
1472	Barite	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1475	Phosphate rock	34	24	5.2	34.5	3.9	8.8	24.3	155.1	117.2	233.2	39.1	(D)	(D)
1479	Chemical and fertilizer mining, n.e.c.	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	13	1	.1	.5	.1	.2	.4	.9	.3	1.2	.1	(NA)	(NA)

See footnotes at end of table.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963—Continued

(See appendix, Explaqation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels--Continued													
149	Miscellaneous nonmetallic minerals	69	14	1.1	5.3	1.0	2.0	4.3	14.3	4.7	18.1	.9	(D)	(D)
1493	Mica	14	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	15	6	.5	2.2	.4	.9	1.9	4.9	1.1	5.8	.2	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	30	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	8.4

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number [1] (1,000)	Payroll [1] (million dollars)	Number [1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	128	34	2.8	12.7	2.7	5.3	11.7	42.7	9.9	51.9	[2]0.7	3.2	33.5
1411	Dimension stone	23	17	1.8	7.6	1.6	3.2	6.5	12.7	4.3	16.3	0.7	1.8	9.6
142	Crushed and broken stone (limestone)	22	12	0.5	2.8	0.5	1.0	2.8	14.9	3.1	18.0	(NA)	0.6	12.1
145	Clay and related minerals	74	1	0.3	1.3	0.3	0.6	1.3	11.1	1.4	12.4	(NA)	(NA)	(NA)
1453	Fire clay	4	-	(Z)	0.1	(Z)	0.1	0.1	1.1	0.2	1.3	(NA)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	70	1	0.3	1.2	0.3	0.6	1.2	9.9	1.2	11.1	(NA)	0.3	4.9

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the Dimension Stone Industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	South Atlantic division:													
	Establishments.....number..	3,259	3,209	1,441	1,148	128	165	838	236	532	70	81	849	50
	Employees.....1,000..	80.2	80.0	16.3	12.3	1.2	2.8	56.3	29.9	20.7	5.7	2.7	5.1	.2
	Value added in mining..mil.dol..	1,335.8	1,337.6	221.8	127.8	16.4	78.0	990.8	503.5	396.1	91.2	82.1	42.9	-1.8
10	Metal mining:													
	Establishments.....number..	30	28	12	1	11	-	6	-	6	-	3	7	2
	Employees.....1,000..	.7	(D)	(D)	(D)	(D)	-	.5	-	.5	-	(D)	.1	(D)
	Value added in mining..mil.dol..	14.4	(D)	(D)	(D)	(D)	-	11.5	-	11.5	-	(D)	.6	(D)
1011	Iron ores:													
	Establishments.....number..	11	9	7	-	7	-	2	-	2	-	-	-	2
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	.6	-	.6	-	(D)	-	(D)	-	-	-	(D)
1021	Copper ores:													
	Establishments.....number..	2	2	1	-	1	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1051	Bauxite and other aluminum ores:													
	Establishments.....number..	4	4	3	-	3	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(Z)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	.3	(D)	-	(D)	-	-	-	-	-	(D)	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	5	5	-	-	-	-	4	-	4	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	1,631	1,616	1,204	1,142	31	31	283	221	20	42	46	83	15
	Employees.....1,000..	50.3	50.2	13.3	12.2	.5	.6	34.2	29.1	.5	4.6	.8	1.9	.1
	Value added in mining..mil.dol..	754.9	754.7	145.8	126.7	8.6	10.5	579.1	494.7	9.3	75.1	17.5	12.3	.2
121	Bituminous coal and lignite mining:													
	Establishments.....number..	1,631	1,616	1,204	1,142	31	31	283	221	20	42	46	83	15
	Employees.....1,000..	50.3	50.2	13.3	12.2	.5	.6	34.2	29.1	.5	4.6	.8	1.9	.1
	Value added in mining..mil.dol..	754.9	754.7	145.8	126.7	8.6	10.5	579.1	494.7	9.3	75.1	17.5	12.3	.2
13	Oil and gas extraction:													
	Establishments.....number..	789	768	133	-	-	133	-	-	-	-	11	624	21
	Employees.....1,000..	4.5	4.5	(D)	-	-	(D)	-	-	-	-	(D)	2.0	(Z)
	Value added in mining..mil.dol..	112.0	114.0	(D)	-	-	(D)	-	-	-	-	(D)	22.5	-2.0
131	Crude petroleum and natural gas:													
	Establishments.....number..	582	562	133	-	-	133	-	-	-	-	-	429	20
	Employees.....1,000..	2.9	(D)	(D)	-	-	(D)	-	-	-	-	-	.7	(D)
	Value added in mining..mil.dol..	71.7	(D)	(D)	-	-	(D)	-	-	-	-	-	6.4	(D)
1321	Natural gas liquids:													
	Establishments.....number..	12	11	-	-	-	-	-	-	-	-	11	-	1
	Employees.....1,000..	.3	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	24.1	24.1	-	-	-	-	-	-	-	-	(D)	-	(D)

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
13	Oil and gas extraction--Continued													
138	Oil and gas field services:													
	Establishments.....number..	195	195	-	-	-	-	-	-	-	-	-	195	-
	Employees.....1,000..	1.3	1.3	-	-	-	-	-	-	-	-	-	1.3	-
	Value added in mining..mil.dol..	16.1	16.1	-	-	-	-	-	-	-	-	-	16.1	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	809	797	92	5	86	1	549	15	506	28	21	135	12
	Employees.....1,000..	24.9	(D)	.7	(D)	(D)	(D)	21.6	.8	19.7	1.1	(D)	1.2	(D)
	Value added in mining..mil.dol..	449.6	(D)	7.7	(D)	(D)	(D)	395.4	8.8	370.5	16.1	(D)	7.8	(D)
141	Dimension stone:													
	Establishments.....number..	31	31	27	-	27	-	4	-	4	-	-	-	-
	Employees.....1,000..	.3	.3	.2	-	.2	-	.1	-	.1	-	-	-	-
	Value added in mining..mil.dol..	2.3	2.3	1.7	-	1.7	-	.6	-	.6	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	336	332	4	2	2	-	315	11	300	4	5	8	4
	Employees.....1,000..	9.4	9.4	.1	(D)	(D)	-	8.9	(D)	8.1	(D)	.2	.3	(Z)
	Value added in mining..mil.dol..	140.9	140.9	.4	(D)	(D)	-	137.5	(D)	127.3	(D)	3.0	-	-
144	Sand and gravel:													
	Establishments.....number	245	242	19	-	18	1	110	-	93	17	5	108	3
	Employees.....1,000..	3.7	(D)	.1	-	(D)	(D)	2.8	-	2.4	.4	(D)	.7	(D)
	Value added in mining..mil.dol..	50.1	(D)	1.8	-	(D)	(D)	41.4	-	35.2	6.2	(D)	6.3	(D)
145	Clay and related minerals:													
	Establishments.....number..	73	68	16	1	15	-	51	1	50	-	-	1	5
	Employees.....1,000..	4.8	4.8	(D)	(D)	.2	-	4.5	(D)	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	81.1	81.1	(D)	(D)	1.8	-	78.2	(D)	(D)	-	(D)	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	42	42	2	-	2	-	27	-	26	1	10	3	-
	Employees.....1,000..	5.5	5.5	(D)	-	(D)	-	4.3	-	(D)	(D)	1.1	(D)	-
	Value added in mining..mil.dol..	160.0	160.0	(D)	-	(D)	-	125.2	-	(D)	(D)	34.6	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	13	13	-	-	-	-	-	-	-	-	-	13	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining..mil.dol..	.9	.9	-	-	-	-	-	-	-	-	-	.9	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	69	69	24	2	22	-	42	3	33	6	1	2	-
	Employees.....1,000..	1.1	1.1	(D)	(D)	.1	-	1.0	(D)	.6	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	14.3	14.3	(D)	(D)	.8	-	12.5	(D)	7.6	(D)	(D)	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
South Atlantic division, total..	3,259	30	-	1,631	789	809
0 to 4 employees.....	1,573	11	-	689	651	222
5 to 9 employees.....	476	6	-	281	65	124
10 to 19 employees.....	448	6	-	272	28	142
20 to 49 employees.....	434	4	-	193	32	205
50 to 99 employees.....	148	-	-	66	7	75
100 to 249 employees.....	112	3	-	77	4	27
250 to 499 employees.....	57	-	-	46	1	10
500 to 999 employees.....	11	-	-	7	-	4

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]2,220	510	43.7	277.8	38.5	75.6	228.5	859.9
1963	[1]3,309	563	48.8	239.6	42.9	80.7	201.0	747.0
1958	3,215	575	62.1	263.7	54.3	93.3	220.3	644.7
1954	3,073	581	66.6	240.0	60.6	104.3	206.9	[2]521.1
Including operations in manufactures:								
1967	2,282	520	44.5	281.9	39.3	77.1	232.5	875.9
1963	3,424	584	50.3	245.5	44.3	83.4	206.5	763.0
1958	3,311	595	63.8	269.2	55.9	96.4	225.4	665.3
1954[3]	3,159	599	68.1	244.4	62.0	107.1	211.0	[2]533.2
1939[4]	[5]1,423	(NA)	93.9	96.0	89.5	134.5	87.0	130.5
1919[6]	1,418	(NA)	97.6	111.7	90.7	(NA)	98.8	145.0
1909[6]	935	(NA)	66.7	33.1	63.0	(NA)	29.5	40.6
1902[7]	[5]1,270	(NA)	43.4	22.8	[8]40.8	(NA)	20.4	30.4
Excluding oil and gas extraction industries:								
1967	1,609	431	37.7	237.6	33.9	65.9	200.9	606.7
1963	2	486	41.5	199.4	37.3	69.7	173.4	473.5
1958	2	489	54.0	226.6	47.8	80.6	192.8	458.2
1954[3]	24	509	60.4	216.7	55.3	94.6	188.6	[2]383.6
1939[4]	[5]1	(NA)	92.0	94.0	87.8	131.9	85.4	121.7
1929[9]	952	(NA)	108.0	117.6	102.2	(NA)	105.0	151.4
1919[6]	1,213	(NA)	95.0	108.2	88.2	(NA)	96.2	126.2
1909[6]	847	(NA)	66.4	33.0	62.8	(NA)	29.4	39.9
1902[7]	[5]1,152	(NA)	43.1	22.6	[8]40.6	(NA)	20.3	30.6

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resales, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	442.2	([11])	75.9	([11])	1,205.8	172.1	(NA)
1963	189.0	134.7	79.9	73.7	1,103.7	120.5	13.9
1958	181.1	130.6	64.7	55.4	976.7	99.7	12.1
1954	128.7	[2]39.3	41.5	44.4	[2]706.1	69.0	9.9
Including operations in manufactures:							
1967	[12](D)	([12])	([12])	([12])	1,225.9	(D)	(NA)
1963	[13]193.8	5.0	[13]79.9	[14]74.4	1,124.8	[14]121.2	[14]13.9
1958	[13]184.9	0.7	[13]64.7	[14]55.6	1,001.4	[14]99.8	[14]12.1
1954[3]	[13]131.7	[2]39.5	[13]41.5	[14]44.5	[2]721.2	[14]69.1	[14]9.9
1939[4]	25.9	(NA)	2.0	(NA)	158.5	(NA)	5.7
1919[6]	33.0	(Z)	3.7	(NA)	181.6	(NA)	[15]14.3
1909[6]	7.4	.2	1.0	(NA)	49.1	(NA)	(NA)
1902[7]	4.2	(NA)	.9	(NA)	35.4	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[12](D)	(NA)	(NA)	(NA)	843.0	(NA)	(NA)
1963	[13]140.6	72.8	[13]21.0	[14]57.4	703.6	[14]61.7	[14]7.0
1958	[13]138.2	102.7	[13]17.6	[14]37.5	711.4	[14]42.8	[14]5.6
1954[3]	[13]103.5	[2]37.5	[13]10.4	[14]27.4	[2]533.1	[14]29.4	[14]4.0
1939[4]	24.9	(NA)	.6	(NA)	147.1	(NA)	5.3
1929[9]	32.1	(NA)	.3	6.0	183.8	(NA)	8.8
1919[6]	28.7	-	3.4	(NA)	158.3	(NA)	[15]13.9
1909[6]	7.2	.2	.9	(NA)	48.3	(NA)	(NA)
1902[7]	3.8	(NA)	.5	(NA)	34.9	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1--East South Central--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 611 single unit establishments without paid employees in this division. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry. For minerals received for preparation at natural gas liquids plants, excludes the cost of natural gas processed, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. Except for number of establishments, excludes data for one service operation and one nonproducing operation. For "Excluding oil and gas extraction industries," except for number of establishments, includes data for 5 nonproducing operations in the Crude Petroleum and Natural Gas Industry.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand, gravel, common clay, and shale mining operations and stone quarries operated as parts of cement and lime plants. In 1939, there were 46 stone quarries operated as parts of cement and lime plants. In 1939, there were 46 such clay and shale mines with products valued at $362 thousand. In 1929, there were 53 such sand and gravel establishments with products valued at nearly $6 million, and 19 such stone operations, 12 of which had products valued at $1,088 thousand. For 1919, excludes data for 3 nonproducing establishments and, except for number of establishments, excludes data for 2 clay mines in Mississippi. For "Excluding oil and gas extraction industries," except for number of establishments, in 1919 includes data for 3 establishments in the Crude Petroleum and Natural Gas Industry, and in 1909, for one such establishment.

[7]Excludes data for sand, gravel, common clay, and shale operations. Includes data for 2 cement plants and for lime plants producing lime valued at $488 thousand. For "Excluding oil and gas extraction industries," except for number of establishments, includes data for 2 operations in the Crude Petroleum and Natural Gas Industry in Tennessee.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Excludes data for common clay and shale mining operations. In 1939, there were 46 such mines with products valued at $362 thousand.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for the crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1939, the quantity of purchased electric energy amounted to nearly 9 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	2,220	510	43.7	277.8	38.5	75.6	228.5	859.9	518.1	1,205.8	172.1	48.8	747.0
10	Metal mining	36	20	2.7	15.9	2.3	4.6	12.7	38.9	13.5	48.6	3.7	1.9	21.4
1011	Iron ores	16	5	.6	4.4	.5	1.1	3.7	7.8	2.9	10.2	.5	.9	11.0
1021	Copper ores	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	9	9	1.3	7.2	1.1	2.1	5.3	13.7	5.9	16.9	2.8	.9	9.6
	Zinc ores	9	9	1.3	7.2	1.1	2.1	5.3	13.7	5.9	16.9	2.8	.9	9.6
1051	Bauxite and other aluminum ores	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	1,032	243	25.5	169.4	23.2	43.3	146.0	409.4	257.2	582.5	84.3	28.4	308.9
121	Bituminous coal and lignite mining	1,032	243	25.5	169.4	23.2	43.3	146.0	409.4	257.2	582.5	84.3	28.4	308.9
1211	Bituminous coal	1,023	242	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	28.2	307.2
1213	Bituminous and lignite mining services, n.e.c.	9	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.7
13	Oil and gas extraction	673	89	6.8	44.3	5.4	11.2	31.6	269.2	176.5	382.9	62.9	8.8	289.6
131	Crude petroleum and natural gas	331	39	3.2	22.0	2.6	5.1	14.6	217.4	78.4	239.7	56.2	4.6	237.3
	Crude petroleum	289	34	2.4	16.5	1.8	3.8	10.6	178.8	70.0	200.4	48.4	3.7	218.1
	Natural gas	42	5	.9	5.6	.7	1.3	4.0	38.6	8.4	39.3	7.8	.9	19.2
1321	Natural gas liquids	13	3	.2	1.4	.1	.3	1.1	10.5	(D)	86.3	(D)	.2	14.1
138	Oil and gas field services	329	47	3.2	18.6	2.9	5.8	15.9	41.3	(D)	56.9	(D)	4.0	38.2
1381	Drilling oil and gas wells	168	24	1.5	9.5	1.4	2.8	8.4	18.8	14.0	29.1	3.7	(D)	(D)
1382	Oil and gas exploration services	39	3	.3	2.0	.3	.7	1.7	4.1	(D)	5.1	(D)	(D)	(D)
1389	Oil and gas field services, n.e.c.	122	20	1.3	7.2	1.1	2.3	5.8	18.3	6.3	22.7	1.9	(D)	(D)
14	Nonmetallic minerals, except fuels	479	158	8.8	48.9	7.5	16.6	38.6	142.3	71.0	192.2	21.1	9.7	127.1
141	Dimension stone	18	4	.2	.9	.2	.3	.6	.9	.3	1.2	(Z)	.2	1.0
	Dimension stone, n.e.c.	15	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	209	89	4.6	25.3	4.0	9.0	20.1	69.6	36.9	94.6	11.9	4.6	63.2
1422	Crushed and broken limestone	199	85	4.1	22.8	3.6	8.3	18.2	64.2	35.0	87.8	11.4	4.3	60.1
1429	Crushed and broken stone, n.e.c.	9	4	.5	2.4	.4	.7	1.8	5.4	1.9	6.7	.6	(D)	(D)
144	Sand and gravel	169	33	2.1	11.0	1.7	3.8	8.3	27.4	13.9	36.5	4.9	2.3	23.2
1442	Construction sand and gravel	155	31	1.9	10.3	1.6	3.5	7.7	25.2	12.6	33.3	4.6	(NA)	(NA)
	Molding sand	7	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Industrial sand, n.e.c.	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay and related minerals	43	18	.9	5.2	.7	1.6	4.1	17.0	7.7	22.8	1.9	.8	11.1
1452	Bentonite	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1453	Fire clay	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.5
1454	Fuller's earth	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1455	Kaolin and ball clay	12	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	12	6	.2	1.4	.2	.4	1.1	4.0	2.3	5.6	.6	.1	1.1
147	Chemical and fertilizer minerals	26	9	.7	4.8	.6	1.3	4.1	21.9	10.5	30.5	2.0	(NA)	(NA)
1473	Fluorspar	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	16	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1481	Nonmetallic minerals services	5	1	.1	.5	.1	.1	.4	1.3	.5	1.7	.1	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	9	4	.2	1.3	.2	.4	1.0	4.2	1.2	5.0	.3	(D)	(D)
1493	Mica	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	62	10	0.8	4.1	0.8	1.5	4.0	16.0	(D)	20.1	(D)	1.5	16.0
142	Crushed and broken stone (limestone)	22	6	0.3	1.9	0.3	0.7	1.9	8.7	2.2	10.9	(NA)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	32	-	0.1	0.5	0.1	0.2	0.5	1.9	0.8	2.7	(NA)	0.2	2.3

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	East South Central division:													
	Establishments.....number..	2,220	2,188	1,046	760	86	200	521	132	331	58	54	567	32
	Employees.....1,000..	43.9	43.8	12.3	7.8	1.2	3.3	26.0	14.9	8.5	2.5	.8	5.2	.1
	Value added in mining..mil.dol..	859.9	860.9	318.2	77.6	22.2	218.4	467.9	223.1	190.0	54.9	19.5	55.2	-1.0
10	Metal mining:													
	Establishments.....number..	36	35	10	1	8	1	18	10	8	-	1	6	1
	Employees.....1,000..	2.7	(D)	.1	(D)	(D)	(D)	2.4	2.2	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	38.9	(D)	1.0	(D)	(D)	(D)	36.9	34.3	(D)	(D)	(D)	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	16	15	6	-	6	-	8	1	7	-	-	1	1
	Employees.....1,000..	.6	(D)	(Z)	-	(Z)	-	.5	.3	.2	-	-	(D)	(D)
	Value added in mining..mil.dol..	7.8	(D)	.4	-	.4	-	7.4	5.5	1.9	-	-	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	2	2	-	-	-	-	1	1	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	-
103	Lead and zinc ores:													
	Establishments.....number..	9	8	-	-	-	-	8	8	-	-	-	-	1
	Employees.....1,000..	1.3	(D)	-	-	-	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining..mil.dol..	13.7	(D)	-	-	-	-	(D)	(D)	-	-	-	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1051	Bauxite and other aluminum ores:													
	Establishments.....number..	4	4	2	-	2	-	1	-	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	1	1	-	-	1	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	1,032	1,030	804	755	29	20	176	104	42	30	33	17	2
	Employees.....1,000..	25.5	(D)	8.6	7.7	.7	.2	16.1	12.5	(D)	(D)	.4	(D)	(D)
	Value added in mining..mil.dol..	409.4	(D)	97.6	77.5	14.5	5.7	303.1	186.4	(D)	(D)	8.2	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	1,032	1,030	804	755	29	20	176	104	42	30	33	17	2
	Employees.....1,000..	25.5	(D)	8.6	7.7	.7	.2	16.1	12.5	(D)	(D)	.4	(D)	(D)
	Value added in mining..mil.dol..	409.4	(D)	97.6	77.5	14.5	5.7	303.1	186.4	(D)	(D)	8.2	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	673	649	176	-	-	176	-	-	-	-	11	462	24
	Employees.....1,000..	7.0	6.8	3.0	-	-	3.0	-	-	-	-	(D)	(D)	.1
	Value added in mining..mil.dol..	269.2	270.0	213.7	-	-	213.7	-	-	-	-	(D)	(D)	-.8
131	Crude petroleum and natural gas:													
	Establishments.....number..	331	309	176	-	-	176	-	-	-	-	-	133	22
	Employees.....1,000..	3.4	(D)	3.0	-	-	3.0	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	217.4	(D)	213.7	-	-	213.7	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	13	11	-	-	-	-	-	-	-	-	11	-	2
	Employees.....1,000..	.2	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	10.5	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
13	Oil and gas extraction--Continued													
138	Oil and gas field services:													
	Establishments.....number..	329	329	-	-	-	-	-	-	-	-	-	329	-
	Employees.....1,000..	3.2	3.2	-	-	-	-	-	-	-	-	-	3.2	-
	Value added in mining..mil.dol..	41.3	41.3	-	-	-	-	-	-	-	-	-	41.3	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	479	474	56	4	49	3	327	18	281	28	9	82	5
	Employees.....1,000..	8.8	8.8	.6	(D)	.4	(D)	7.5	.5	6.2	.8	.1	.5	(Z)
	Value added in mining..mil.dol..	142.3	142.3	7.6	(D)	6.9	(D)	128.0	7.0	109.9	11.1	.4	6.3	-
141	Dimension stone:													
	Establishments.....number..	18	18	13	-	13	-	4	-	4	-	-	1	-
	Employees.....1,000..	.2	.2	.1	-	.1	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	.9	.9	.6	-	.6	-	(D)	-	(D)	-	-	(D)	-
142	Crushed and broken stone:													
	Establishments.....number..	209	208	2	1	1	-	198	17	177	4	3	5	1
	Employees.....1,000..	4.6	(D)	(D)	(D)	(D)	-	4.5	(D)	3.9	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	69.6	(D)	(D)	(D)	(D)	-	69.1	(D)	61.0	(D)	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	169	165	12	-	9	3	82	-	59	23	1	70	4
	Employees.....1,000..	2.1	(D)	(D)	-	(D)	(D)	1.5	-	1.0	.6	(D)	.4	(D)
	Value added in mining..mil.dol..	27.4	(D)	(D)	-	(D)	(D)	20.3	-	12.7	7.6	(D)	5.0	(D)
145	Clay and related minerals:													
	Establishments.....number..	43	43	17	1	16	-	26	-	26	-	-	-	-
	Employees.....1,000..	.9	.9	.1	(D)	(D)	-	.8	-	.8	-	-	-	-
	Value added in mining..mil.dol..	17.0	17.0	2.1	(D)	(D)	-	14.9	-	14.9	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	26	26	11	2	9	-	10	1	9	-	4	1	-
	Employees.....1,000..	.7	.7	.2	(D)	(D)	-	(D)	(D)	(D)	-	.1	(D)	-
	Value added in mining..mil.dol..	21.9	21.9	2.6	(D)	(D)	-	(D)	(D)	(D)	-	(Z)	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining..mil.dol..	1.3	1.3	-	-	-	-	-	-	-	-	-	1.3	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	9	9	1	-	1	-	7	-	6	1	1	-	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	.2	-	(D)	(D)	(D)	-	-
	Value added in mining..mil.dol..	4.2	4.2	(D)	-	(D)	-	4.0	-	(D)	(D)	(D)	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
East South Central division, total	2,220	36	-	1,032	673	479
0 to 4 employees	988	7	-	455	419	107
5 to 9 employees	306	4	-	150	81	71
10 to 19 employees	415	5	-	184	83	143
20 to 49 employees	356	10	-	153	65	128
50 to 99 employees	80	2	-	33	18	27
100 to 249 employees	52	5	-	38	6	3
250 to 499 employees	17	2	-	15	-	-
500 to 999 employees	6	1	-	4	1	-

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] [2]9,593	[2]1,901	176.2	1,332.6	118.0	248.9	763.2	10,089.0
1963	[1] [2]12,127	[2]1,745	196.4	1,271.1	135.9	287.7	768.3	7,801.8
1958	10,055	1,896	225.7	1,230.9	151.7	320.2	719.5	6,156.4
1954	9,179	1,906	223.7	1,044.6	165.2	358.0	688.5	[3]5,209.8
Including operations in manufactures:								
1967	[2]9,709	[2]1,921	177.4	1,338.5	119.2	251.3	768.8	10,117.7
1963	[2]12,319	[2]1,764	197.8	1,277.1	137.2	290.4	774.1	7,829.5
1958	10,219	1,918	227.2	1,236.2	153.1	322.9	724.7	6,183.9
1954[4]	9,306	1,938	225.4	1,049.2	167.0	361.4	693.0	[3]5,226.6
1939[5]	[6]6,252	(NA)	122.9	203.2	98.7	176.3	137.9	809.3
1919[7]	2,919	(NA)	72.2	109.8	60.8	(NA)	88.5	299.4
1909[7]	1,302	(NA)	26.1	18.2	24.0	(NA)	15.7	35.3
1902[8]	[6]536	(NA)	8.5	5.3	[9]7.0	(NA)	4.4	7.1
Excluding oil and gas extraction industries:								
1967	762	229	16.4	103.4	13.2	29.0	75.5	488.1
1963	959	198	16.0	81.1	13.0	28.1	61.2	285.7
1958	862	214	17.2	78.3	14.1	30.6	59.1	252.0
1954[4]	840	213	18.8	71.1	16.6	36.3	59.4	[3]258.3
1939[5]	[6]626	(NA)	17.2	18.3	15.5	28.4	14.5	57.0
1929[10]	498	(NA)	24.2	31.8	22.3	(NA)	26.6	43.0
1919[11]	429	(NA)	23.3	29.0	21.0	(NA)	25.7	44.6
1909[12]	363	(NA)	19.7	12.1	18.8	(NA)	11.2	14.2
1902[13]	[6]237	(NA)	6.7	4.0	[9]6.3	(NA)	3.6	5.2

Kind of operation and year	Selected expenses				Value of shipments and receipts [14]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[15]3,918.4	([15])	1,121.1	([15])	13,062.1	2,066.1	(NA)
1963	1,342.8	1,296.4	1,088.4	474.4	10,197.3	1,806.5	253.2
1958	1,127.3	634.2	1,067.0	464.9	7,914.4	1,535.5	237.1
1954	918.8	[16]149.3	1,029.5	615.8	[3]6,397.7	1,525.5	217.3
Including operations in manufactures:							
1967	[17]5,047.8	([17])	([17])	([17])	13,099.0	[19]2,066.2	(NA)
1963	[18]1,349.3	1,296.4	[18]1,088.4	[19]474.5	10,231.7	[19]1,806.5	[19]253.2
1958	[18]1,132.2	634.4	[18]1,067.1	[19]465.0	7,946.9	[19]1,535.5	[19]237.1
1954[4]	[18]922.7	[16]149.3	[18]1,029.5	[19]615.9	[3]6,418.4	[19]1,525.6	[19]217.3
1939[5]	83.0	(NA)	122.9	(NA)	1,015.3	(NA)	106.3
1919[7]	124.3	[20]11.0	48.0	(NA)	482.7	(NA)	[21]22.5
1909[7]	9.5	[20].2	2.5	(NA)	47.5	(NA)	(NA)
1902[8]	1.4	(NA)	1.8	(NA)	10.3	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[17]180.8	([17])	([17])	([17])	597.8	(NA)	(NA)
1963	[18]77.6	8.5	[18]8.1	[19]15.3	372.6	[19]22.6	[19]17.2
1958	[18]61.9	3.4	[18]11.0	[19]20.0	316.5	[19]31.9	[19]15.1
1954[4]	[18]59.0	[3]7.9	[18]8.5	[19]16.7	[3]331.1	[19]19.3	[19]16.2
1939[5]	11.9	(NA)	.4	(NA)	69.3	(NA)	5.9
1929[10]	20.8	(NA)	.4	4.2	64.3	(NA)	9.8
1919[11]	14.1	-	.6	(NA)	59.3	(NA)	[21]5.3
1909[12]	2.5	-	.1	(NA)	16.8	(NA)	(NA)
1902[13]	.7	(NA)	.2	(NA)	6.1	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1--West South Central--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the Census. In 1963, there were 1,781 single unit establishments without paid employees in this division. In the 1963 Census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Figures for number of establishments in 1967 and 1963 are not entirely comparable with those for earlier years. For 1967 and 1963, operators of oil and gas field properties were asked to make separate reports by districts for Louisiana and Texas, whereas only one report was required for each State in previous years.

[3]Excludes data for the Uranium-Radium-Vanadium Ores Industry. For "Minerals received for preparation," see footnote 6.

[4]Excludes data for sand and gravel mining operations in manufacturing establishments.

[5]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries.

[6]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[7]Excludes data for sand and gravel operations and for stone quarries operated as parts of cement and lime plants. For 1929, there were 95 such sand and gravel establishments with products valued at $10,607 thousand, and 15 such stone operations (the value of products of 11 of these stone operations was $991 thousand). See footnote 10. For 1919, except for number of establishments, excludes data for one limestone and sulfur establishment in Louisiana.

[8]Includes data for lime plants producing lime valued at $165 thousand and for 2 cement plants. Excludes data for sand and gravel and clay mining operations.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]Excludes data for common clay and shale operations. In 1939, there were 57 such mines with products valued at $448 thousand.

[11]Except for number of establishments, includes data for 28 nonproducing operations in the Oil and Gas Extraction Industries in Oklahoma. See also footnote 7.

[12]Except for number of establishments, includes data for 11 nonproducing operations in the Oil and Gas Extraction Industries in Oklahoma, and excludes data for one limestone and sulfur establishment in Louisiana. See also footnote 7.

[13]Except for number of establishments, includes data for 3 establishments in the Oil and Gas Extraction Industries in Louisiana and Oklahoma. See also footnote 8.

[14]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas liquids plants.

[15]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[16]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas. See also footnote 3.

[17]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[18]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work (and in 1954, for dimension stone operations in manufactures, the cost of minerals received for preparation) is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[19]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[20]Represents the cost of gas purchased as a material and for resale.

[21]Excludes purchased electric energy. For "All operations in 1939, the quantity of purchased electric energy amounted to only 0.4 percent of the total kw.-hrs. equivalent of energy used and for "Excluding oil and gas extraction industries" in 1929, to 1.4 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	9,593	1,901	176.2	1,332.6	118.0	248.9	763.2	10,089.0	5,039.5	13,062.1	2,066.1	196.4	7,801.8
10	Metal mining	61	10	1.1	7.0	.8	1.6	4.9	28.7	27.8	40.9	15.6	1.2	36.2
103	Lead and zinc ores	19	2	.2	1.1	.1	.3	.7	2.2	3.6	5.6	.2	(D)	(D)
1032	Lead ores	10	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	9	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1051	Bauxite and other aluminum ores	9	4	.5	3.6	.4	.7	2.5	21.2	5.3	26.4	.1	.5	16.7
109	Miscellaneous metal ores	12	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1092	Mercury ores	4	1	.1	.3	.1	.1	.2	-.1	.3	.2	(Z)	(D)	(D)
1094	Uranium-radium-vanadium ores	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	26	7	.4	3.2	.4	.7	2.6	12.2	3.2	14.4	1.0	.6	(NA)
121	Bituminous coal and lignite mining	26	7	.4	3.2	.4	.7	2.6	12.2	3.2	14.4	1.0	.6	(NA)
1211	Bituminous coal	21	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	5.5
1212	Lignite	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	8,945	1,689	160.9	1,233.4	106.0	222.3	692.8	9,625.1	4,865.6	12,495.9	1,995.0	181.8	7,543.9
131	Crude petroleum and natural gas	4,667	593	80.3	690.4	38.1	75.4	262.5	7,912.1	2,165.4	8,426.4	1,651.1	91.0	6,060.0
	Crude petroleum	3,919	481	68.8	599.6	32.0	63.0	218.9	6,362.6	1,747.7	6,790.2	1,320.1	80.7	5,150.8
	Natural gas	748	112	11.5	90.8	6.0	12.3	43.5	1,549.5	417.7	1,636.2	331.0	10.3	909.2
1321	Natural gas liquids	499	162	9.4	75.8	7.8	15.7	60.9	718.8	2,212.7	2,753.7	177.9	10.2	587.9
138	Oil and gas field services	3,779	936	71.2	467.2	60.1	131.2	369.4	994.2	487.5	1,315.8	166.0	80.5	896.0
1381	Drilling oil and gas wells	1,147	375	27.7	186.6	25.0	53.1	161.6	409.1	263.3	576.8	95.6	37.0	438.9
1382	Oil and gas exploration services	325	68	5.6	35.3	4.5	11.1	25.5	86.7	31.3	103.9	14.2	6.4	60.6
1389	Oil and gas field services, n.e.c.	2,307	193	37.8	245.3	30.7	67.0	182.4	498.4	192.9	635.1	56.2	37.2	396.5
14	Nonmetallic minerals, except fuels	559	192	13.5	87.2	10.7	24.2	62.3	418.6	141.5	505.8	54.3	12.8	221.7
141	Dimension stone	11	-	.1	.2	.1	.1	.1	.5	.1	.6	(Z)	.2	1.3
142	Crushed and broken stone	94	51	3.2	18.2	2.7	6.3	14.3	45.4	26.5	65.3	6.6	3.0	37.4
1422	Crushed and broken limestone	70	37	2.1	12.0	1.8	4.4	9.1	29.0	14.4	38.0	5.6	2.1	22.5
1423	Crushed and broken granite	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	21	11	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	346	84	4.4	24.6	3.9	8.8	19.7	61.4	37.3	84.4	14.3	4.5	47.7
1442	Construction sand and gravel	329	74	4.0	22.5	3.5	8.0	17.9	55.6	34.2	76.1	13.7	(NA)	(NA)
	Glass sand	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Molding sand	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Industrial sand, n.e.c.	11	7	.3	1.3	.3	.5	1.1	3.9	1.8	5.2	.5	(NA)	(NA)
145	Clay and related minerals	21	7	.4	2.3	.3	.7	1.7	5.8	3.0	8.5	.3	.2	3.1
1452	Bentonite	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	13	5	.3	1.9	.2	.6	1.4	4.4	2.3	6.4	.3	(D)	(D)
147	Chemical and fertilizer minerals	43	34	4.3	35.1	3.0	6.6	21.8	288.8	61.8	319.2	31.4	(NA)	(NA)
1472	Barite	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1474	Potash, soda, and borate minerals	5	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	7	7	1.0	6.2	.8	1.9	4.9	28.1	7.3	34.1	1.2	(D)	(D)
1477	Sulfur	24	19	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	34	15	1.1	6.6	.8	1.8	4.4	16.3	12.6	27.3	1.5	(D)	(D)
1492	Gypsum	7	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1494	Native asphalt and bitumens	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	4	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1499	Nonmetallic minerals, n.e.c.	15	9	.6	4.3	.4	1.0	2.7	11.0	9.5	19.7	.8	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number [1] (1,000)	Payroll [1] (million dollars)	Number [1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	116	20	1.2	5.9	1.2	2.4	5.6	28.7	8.3	36.9	[2]0.1	1.4	27.8
142	Crushed and broken stone (limestone)	28	9	0.5	2.4	0.5	0.9	2.4	14.5	4.0	18.5	(NA)	0.4	11.9
144	Sand and gravel	16	2	0.2	0.8	0.2	0.3	0.8	2.8	0.4	3.2	(NA)	0.2	3.9
1459	Clay and related minerals, n.e.c.	54	1	0.2	0.9	0.2	0.4	0.9	2.5	1.2	3.7	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	West South Central division:													
	Establishments.....number..	9,593	9,438	2,979	35	55	2,889	337	8	279	50	496	5,626	155
	Employees.....1,000..	176.4	175.6	56.0	.4	.4	55.2	9.5	.6	7.1	1.8	9.4	100.4	.8
	Value added in mining..mil.dol..	10,089.0	10,092.6	8,125.0	3.7	15.2	8,106.2	164.5	16.0	109.2	39.3	726.1	1,067.1	-3.6
10	Metal mining:													
	Establishments.....number..	61	59	38	21	16	1	4	-	3	1	7	10	2
	Employees.....1,000..	1.1	(D)	.6	.2	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	28.7	(D)	23.0	1.9	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
103	Lead and zinc ores:													
	Establishments.....number..	19	19	17	17	-	-	-	-	-	-	1	1	-
	Employees.....1,000..	.2	.2	(D)	(D)	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	2.2	2.2	(D)	(D)	-	-	-	-	-	-	(D)	(D)	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1051	Bauxite and other aluminum ores:													
	Establishments.....number..	9	9	5	-	4	1	1	-	1	-	2	1	-
	Employees.....1,000..	.5	.5	(D)	-	.1	(D)	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	21.2	21.2	(D)	-	11.4	(D)	(D)	-	(D)	-	(D)	(D)	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	6	6	4	-	4	-	-	-	-	-	2	-	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	.1	-	.1	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	8	8	-	-	-	-	-	-	-	-	-	8	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	12	10	6	3	3	-	2	-	1	1	2	-	2
	Employees.....1,000..	(D)	.3	.1	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	.3	.7	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	26	26	15	13	2	-	10	1	8	1	-	1	-
	Employees.....1,000..	.4	.4	.1	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	12.2	12.2	.7	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	26	26	15	13	2	-	10	1	8	1	-	1	-
	Employees.....1,000..	.4	.4	.1	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	12.2	12.2	.7	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	8,947	8,799	2,874	-	-	2,874	-	-	-	-	480	5,445	148
	Employees.....1,000..	161.0	160.3	52.9	-	-	52.9	-	-	-	-	9.0	98.4	.7
	Value added in mining..mil.dol..	9,625.1	9,631.7	7,836.0	-	-	7,836.0	-	-	-	-	717.4	1,078.3	-6.6
131	Crude petroleum and natural gas:													
	Establishments.....number..	4,669	4,529	2,874	-	-	2,874	-	-	-	-	-	1,655	140
	Employees.....1,000..	80.8	80.2	52.9	-	-	52.9	-	-	-	-	-	27.3	.7
	Value added in mining..mil.dol..	7,912.1	7,920.1	7,836.0	-	-	7,836.0	-	-	-	-	-	84.1	-8.0
1321	Natural gas liquids:													
	Establishments.....number..	499	491	-	-	-	-	-	-	-	-	480	11	8
	Employees.....1,000..	9.4	9.4	-	-	-	-	-	-	-	-	9.0	.4	(Z)
	Value added in mining..mil.dol..	718.8	717.4	-	-	-	-	-	-	-	-	717.4	-	1.4

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
13	Oil and gas extraction--Con.													
138	Oil and gas field services:													
	Establishments.....number..	3,779	3,779	-	-	-	-	-	-	-	-	-	3,779	-
	Employees.....1,000..	70.8	70.8	-	-	-	-	-	-	-	-	-	70.8	-
	Value added in mining..mil.dol..	994.2	994.2	-	-	-	-	-	-	-	-	-	994.2	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	559	554	52	1	37	14	323	7	268	48	9	170	5
	Employees.....1,000..	13.5	(D)	2.4	(D)	.2	(D)	9.1	(D)	6.8	(D)	(D)	1.6	(D)
	Value added in mining..mil.dol..	418.6	(D)	249.5	(D)	2.8	(D)	152.8	(D)	98.4	(D)	(D)	8.9	(D)
141	Dimension stone:													
	Establishments.....number..	11	11	7	-	7	-	4	-	4	-	-	-	-
	Employees.....1,000..	.1	.1	(Z)	-	(Z)	-	(Z)	-	(Z)	-	-	-	-
	Value added in mining..mil.dol..	.5	.5	.2	-	.2	-	.3	-	.3	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	94	94	2	-	2	-	90	2	88	-	1	1	-
	Employees.....1,000..	3.2	3.2	(D)	-	(D)	-	3.1	(D)	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	45.4	45.4	(D)	-	(D)	-	44.6	(D)	(D)	-	(D)	(D)	-
144	Sand and gravel:													
	Establishments.....number..	346	344	18	-	16	2	177	-	139	38	5	144	2
	Employees.....1,000..	4.4	(D)	(D)	-	.1	(D)	3.6	-	2.9	.7	(D)	.5	(D)
	Value added in mining..mil.dol..	61.4	(D)	(D)	-	1.1	(D)	51.8	-	43.0	8.7	(D)	6.3	(D)
145	Clay and related minerals:													
	Establishments.....number..	21	21	7	-	7	-	14	-	13	1	-	-	-
	Employees.....1,000..	.4	.4	(Z)	-	(Z)	-	.3	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	5.8	5.8	.7	-	.7	-	5.1	-	(D)	(D)	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	43	40	13	-	2	11	14	5	1	8	3	10	3
	Employees.....1,000..	4.3	(D)	2.0	-	(D)	(D)	1.4	.5	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	288.8	(D)	244.7	-	(D)	(D)	39.1	14.9	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	10	10	-	-	-	-	-	-	-	-	-	10	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining..mil.dol..	.4	.4	-	-	-	-	-	-	-	-	-	.4	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	34	34	5	1	3	1	24	-	23	1	-	5	-
	Employees.....1,000..	1.1	1.1	.2	(D)	(D)	(D)	.6	-	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	16.3	16.3	2.2	(D)	(D)	(D)	11.8	-	(D)	(D)	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
West South Central division, total	9,593	61	-	26	8,947	559
0 to 4 employees	5,138	29	-	11	4,908	190
5 to 9 employees	1,372	12	-	2	1,283	75
10 to 19 employees	1,184	10	-	6	1,066	102
20 to 49 employees	1,201	3	-	5	1,062	131
50 to 99 employees	384	4	-	2	341	37
100 to 249 employees	212	2	-	-	192	18
250 to 499 employees	71	1	-	-	65	5
500 to 999 employees	25	-	-	-	24	1
1,000 to 2,499 employees	6	-	-	-	6	-

Standard Notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]2,830	[1]536	68.0	521.3	52.5	108.9	375.5	2,234.6
1963	3,664	515	77.0	507.8	61.9	127.4	387.1	2,101.8
1958	3,800	565	84.9	463.1	64.7	128.7	329.6	[2]1,744.1
1954	4,551	556	84.7	393.7	68.7	140.5	301.9	[2]1,305.5
Including operations in manufactures:								
1967	2,941	541	68.8	526.1	53.3	110.4	380.3	2,253.9
1963	3,812	522	78.1	513.4	63.0	129.5	392.6	2,129.8
1958	3,913	573	85.7	466.9	65.5	130.4	333.4	1,768.6
1954[3]	4,612	561	85.1	395.2	69.1	141.3	303.3	[2]1,313.9
1939[4]	[5]2,351	(NA)	74.1	111.8	66.7	129.8	93.7	283.8
1919[6]	1,948	(NA)	91.7	151.3	84.7	(NA)	136.1	231.7
1909[6]	4,378	(NA)	97.7	100.1	91.8	(NA)	90.6	126.8
1902[7]	[5]4,636	(NA)	67.5	67.1	[8]61.7	(NA)	59.4	86.1
Excluding oil and gas extraction industries:								
1967	1,310	262	48.5	373.7	38.6	79.9	281.7	1,001.3
1963	1,985	267	56.5	369.5	47.3	96.8	296.2	1,013.3
1958	2,313	298	61.1	323.4	49.5	96.5	250.5	[2]794.6
1954[3]	3,194	295	62.5	287.7	52.6	107.2	230.6	[2]667.4
1939[4]	[5]1,861	(NA)	68.0	101.3	61.8	122.8	85.8	226.5
1929[9]	1,551	(NA)	88.6	154.7	82.5	(NA)	137.7	311.7
1919[6]	1,882	(NA)	89.3	147.0	82.4	(NA)	132.3	214.9
1909[10]	4,333	(NA)	97.5	99.9	91.6	(NA)	90.4	126.8
1902[11]	[5]4,619	(NA)	67.3	66.9	[8]61.5	(NA)	59.2	85.7

Kind of operation and year	Selected expenses				Value of shipments and receipts[12]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	1,116.8	([13])	206.5	([13])	3,076.8	481.5	(NA)
1963	444.5	380.0	246.1	158.6	2,895.3	435.7	50.1
1958	[14]436.1	[14]288.4	315.0	142.6	2,445.6	480.5	46.4
1954	312.9	[15]140.4	256.3	128.6	[2]1,768.5	364.7	38.4
Including operations in manufactures:							
1967	(NA)	(NA)	(NA)	(NA)	3,100.5	(NA)	(NA)
1963	449.2	380.0	[16]246.1	[17]158.6	2,927.9	[17]435.7	[17]50.2
1958	[14]439.5	[14]288.4	[16]315.0	[17]142.7	2,473.6	[17]480.5	[17]46.4
1954[3]	[16]314.3	[15]140.4	[16]256.4	[17]128.6	[2]1,778.2	[17]364.7	[17]38.4
1939[4]	64.2	(NA)	13.2	(NA)	361.2	(NA)	18.8
1919[6]	80.2	6.3	3.7	(NA)	321.8	(NA)	[18]16.3
1909[6]	57.4	15.6	5.3	(NA)	205.1	(NA)	(NA)
1902[7]	24.3	(NA)	2.1	(NA)	112.5	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	(NA)	(NA)	(NA)	(NA)	1,472.1	(NA)	(NA)
1963	[16]286.9	230.0	[16]68.0	[17]83.8	1,520.6	[17]161.4	[17]17.6
1958	[14]263.5	[14]215.1	[16]109.4	[17]61.7	1,265.2	[17]179.1	[17]19.5
1954[3]	[16]187.5	[2]135.0	[16]74.2	[19]54.7	[2]997.9	[19]110.3	[17]16.7
1939[4]	60.5	(NA)	1.9	(NA)	289.0	(NA)	15.8
1929[9]	82.8	(NA)	5.1	19.7	399.7	(NA)	13.4
1919[6]	75.4	6.2	2.9	(NA)	299.5	(NA)	[18]15.3
1909[10]	57.1	15.6	5.3	(NA)	204.7	(NA)	(NA)
1902[11]	24.2	(NA)	2.1	(NA)	112.1	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1.--Mountain Division--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 653 single unit establishments without paid employees in this division. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments and, except for number of establishments, excludes data for one dimension sandstone quarry and dressing plant and for one common clay pit in New Mexico.

[4]Excludes, in part, data for dimension stone dressing plants operated in conjunction with quarries.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand and gravel operations and for stone quarries operated as parts of cement and lime plants. For 1929, there were 18 such sand and gravel establishments with products valued at $1,596 thousand and 13 such stone operations. See also footnote 9.

[7]Includes data for lime plants and for 2 cement plants; the value of lime produced in 5 of the Mountain States was $229 thousand. Excludes data for sand and gravel and clay mining operations and for stone quarries at other cement plants.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Excludes data for common clay and shale operations. In 1939, there were 27 such mining operations with products valued at about $190 thousand.

[10]Except for number of establishments, includes data for 11 nonproducing oil and gas extraction establishments in Montana, Wyoming, Colorado, and Arizona. See also footnote 5.

[11]Except for number of establishments, includes data for 2 companies in Wyoming primarily engaged in producing crude petroleum, and for 3 companies in Colorado primarily engaged in producing natural gas. See also footnote 7.

[12]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[13]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]Figures for minerals received for preparation in Nevada are included with those for supplies, purchases for resale, and purchased fuels and electric energy. For "Including operations in manufactures," see also footnote 16.

[15]Excludes the cost of natural gas processed at natural gas liquid plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas. See also footnote 2.

[16]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[17]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[18]Excludes purchased electric energy. For "All operations" in 1939, the quantity of purchased electric energy amounted to 7 percent of the total kw.-hrs. equivalent of energy used; and for "Excluding oil and gas extraction industries" in 1929, to 9 percent.

[19]Includes data for 7 establishments primarily engaged in building, repairing, or dismantling rigs and derricks. See also footnote 17.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	2,830	536	68.0	521.3	52.5	108.9	375.5	2,234.6	1,323.3	3,076.8	481.5	44.1	1,069.3
10	Metal mining	605	145	33.4	264.3	26.2	55.9	195.8	709.5	528.3	1,084.3	153.5	15.9	401.0
1011	Iron ores	22	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	12.0	344.1
1021	Copper ores	110	46	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	88	23	3.9	27.1	3.4	6.8	22.6	44.2	29.5	68.4	5.3	(D)	(D)
	Lead ores	68	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Zinc ores	20	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	88	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1042	Lode gold	35	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	16.4
1044	Silver ores	45	8	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium	23	7	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1062	Manganese ores	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1069	Ferroalloy ores, n.e.c.	7	4	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	74	19	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.9
109	Miscellaneous metal ores	200	33	5.3	39.8	4.1	8.4	28.7	144.0	99.1	217.5	25.6	(D)	(D)
1092	Mercury ores	14	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1094	Uranium-radium-vanadium ores	165	31	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	148	39	3.8	28.1	3.3	5.8	21.9	75.7	43.5	111.5	7.6	2.0	(NA)
121	Bituminous coal and lignite mining	148	39	3.8	28.1	3.3	5.7	21.9	75.6	43.5	111.4	7.7	2.0	(NA)
1211	Bituminous coal	136	34	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	17.9
1213	Bituminous and lignite mining services, n.e.c.	7	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	1,631	279	20.6	152.4	14.7	30.5	98.6	1,253.6	652.6	1,629.0	277.1	14.6	536.9
131	Crude petroleum and natural gas	770	99	9.0	76.7	4.8	9.4	33.7	1,052.3	319.5	1,136.1	235.7	8.5	455.9
	Crude petroleum	636	84	7.3	63.9	3.7	7.3	26.0	937.9	280.4	1,019.7	198.6	7.6	380.8
	Natural gas	134	15	1.7	12.8	1.1	2.1	7.7	114.3	39.1	116.4	37.1	.9	75.1
1321	Natural gas liquids	74	26	1.4	10.7	1.2	2.4	9.8	56.7	258.1	293.8	20.9	(D)	(D)
138	Oil and gas field services	787	154	10.1	64.8	8.8	18.7	55.7	144.7	75.1	196.7	20.3	(D)	(D)
1381	Drilling oil and gas wells	218	61	3.7	26.9	3.4	7.3	24.1	48.4	43.4	82.3	9.4	2.8	33.4
1382	Oil and gas exploration services	116	7	.9	5.0	.7	1.6	4.3	13.5	4.6	16.1	2.0	.3	2.1
1389	Oil and gas field services, n.e.c.	453	86	5.4	33.0	4.5	9.7	27.0	82.8	26.9	98.3	9.0	(D)	(D)
14	Nonmetallic minerals, except fuels	446	73	10.3	76.6	8.3	16.8	59.2	196.4	98.9	252.0	43.2	11.6	131.4
142	Crushed and broken stone	63	8	.5	3.6	.5	1.0	3.1	8.4	3.5	11.2	.7	5.7	64.6
1422	Crushed and broken limestone	36	5	.4	2.3	.3	.6	2.1	5.6	2.0	7.1	.5	5.4	62.5
1429	Crushed and broken stone, n.e.c.	24	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.4
144	Sand and gravel	175	11	1.3	8.4	1.1	2.1	6.9	19.0	7.5	24.2	2.3	4.6	50.3
1442	Construction sand and gravel	169	10	1.3	7.9	1.1	2.0	6.5	17.7	6.8	22.3	2.2	(NA)	(NA)
145	Clay and related minerals	36	13	.9	6.5	.8	1.7	5.3	15.4	9.9	24.2	1.0	.4	6.8
1452	Bentonite	14	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1455	Kaolin and ball clay	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	11	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.2
147	Chemical and fertilizer minerals	56	25	6.3	49.8	4.7	9.8	36.8	132.2	68.2	164.3	36.1	(D)	(D)
1473	Fluorspar	9	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1474	Potash, soda, and borate minerals	16	13	4.8	39.5	3.5	7.4	28.5	107.4	50.3	129.0	28.7	(D)	(D)
1475	Phosphate rock	13	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1479	Chemical and fertilizer mining, n.e.c.	2	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	17	4	.2	1.8	.2	.5	1.6	3.4	2.0	4.6	.8	(NA)	(NA)

See footnotes at end of table.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels--Continued													
149	Miscellaneous nonmetallic minerals	81	12	1.0	6.2	.9	1.7	5.2	17.7	7.7	23.2	2.3	.1	(D)
1492	Gypsum	14	-	.1	.3	(Z)	.1	.2	1.0	.3	1.2	.2	(NA)	(NA)
1494	Native asphalt and bitumens	5	3	.2	1.6	.2	.4	1.3	3.2	2.3	5.1	.5	(D)	(D)
1495	Pumice and pumicite	13	-	.1	.2	.1	(Z)	.2	.7	.2	.8	.1	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	34	7	.5	3.4	.4	1.0	3.0	11.4	4.5	14.5	1.3	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	111	5	0.8	4.8	0.8	1.5	4.8	19.3	(D)	23.7	(D)	1.1	27.9
142	Crushed and broken stone (limestone)	26	1	0.2	1.3	0.2	0.5	1.3	6.7	1.4	8.1	(NA)	(NA)	(NA)
144	Sand and gravel	67	4	0.5	3.0	0.5	0.9	3.0	9.7	2.6	12.3	(NA)	0.6	15.2

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Mountain Division:													
	Establishments.....number..	2,830	2,693	1,004	323	164	517	401	109	268	24	100	1,188	137
	Employees.....1,000..	68.0	678	16.0	3.5	3.4	9.1	32.1	18.8	11.9	1.4	4.0	15.7	.2
	Value added in mining..mil.dol..	2,234.6	2,236.7	1,225.4	56.7	103.8	1,064.9	723.6	351.2	361.0	11.4	105.9	181.8	-2.1
10	Metal mining:													
	Establishments.....number..	605	542	329	242	86	1	94	42	47	5	18	101	63
	Employees.....1,000..	33.4	33.3	7.8	2.9	(D)	(D)	20.5	11.2	(D)	(D)	2.5	2.6	(Z)
	Value added in mining..mil.dol..	709.9	715.6	161.2	44.4	(D)	(D)	490.4	202.7	(D)	(D)	47.8	16.2	5.7
101	Iron ores:													
	Establishments.....number..	22	20	13	-	13	-	7	1	5	1	-	-	2
	Employees.....1,000..	(D)	1.2	.1	-	.1	-	1.0	(D)	(D)	(D)	-	-	(D)
	Value added in mining..mil.dol..	(D)	31.0	6.8	-	6.8	-	24.1	(D)	(D)	(D)	-	-	(D)
102	Copper ores:													
	Establishments.....number..	110	89	48	3	44	1	22	3	18	1	7	12	21
	Employees.....1,000..	(D)	16.4	5.3	(D)	2.8	(D)	8.5	(D)	6.4	(D)	1.8	.8	(D)
	Value added in mining..mil.dol..	(D)	403.4	117.7	(D)	90.3	(D)	252.5	(D)	219.7	(D)	33.2	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	88	76	52	52	-	-	16	16	-	-	4	4	12
	Employees.....1,000..	3.9	3.8	1.0	1.0	-	-	2.6	2.6	-	-	(D)	(D)	.1
	Value added in mining..mil.dol..	44.2	43.9	12.3	12.3	-	-	34.8	34.8	-	-	(D)	(D)	.3
104	Gold and silver ores:													
	Establishments.....number..	87	75	55	54	1	-	19	9	9	1	-	1	12
	Employees.....1,000..	(D)	(D)	.1	(D)	(D)	-	1.4	1.2	(D)	(D)	-	(D)	.1
	Value added in mining..mil.dol..	(D)	(D)	1.3	(D)	(D)	-	31.2	19.4	(D)	(D)	-	(D)	(Z)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	23	21	11	6	5	-	8	5	1	2	1	1	2
	Employees.....1,000..	(D)	3.3	(Z)	(Z)	(Z)	-	3.2	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	53.9	.5	.2	.4	-	53.3	(D)	(D)	(D)	(D)	(D)	(D)
108	Metal mining services:													
	Establishments.....number..	74	74	-	-	-	-	-	-	-	-	-	74	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	200	186	149	126	23	-	22	8	14	-	6	9	14
	Employees.....1,000..	5.3	4.9	1.1	1.0	.1	-	2.9	(D)	(D)	-	.6	.3	.4
	Value added in mining..mil.dol..	144.0	134.7	22.5	22.2	.3	-	94.4	(D)	(D)	-	17.8	-	9.3
12	Bituminous coal and lignite mining:													
	Establishments.....number..	148	147	73	69	4	-	59	42	16	1	2	13	1
	Employees.....1,000..	3.8	(D)	(D)	.1	(Z)	-	3.0	2.5	(D)	(D)	(D)	.6	(D)
	Value added in mining..mil.dol..	75.7	(D)	(D)	1.4	(Z)	-	69.7	49.4	(D)	(D)	(D)	3.9	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	148	147	73	69	4	-	59	42	16	1	2	13	1
	Employees.....1,000..	3.8	(D)	(D)	.1	(Z)	-	3.0	2.5	(D)	(D)	(D)	.6	(D)
	Value added in mining..mil.dol..	75.7	(D)	(D)	1.4	(Z)	-	69.7	49.4	(D)	(D)	(D)	3.9	(D)
13	Oil and gas extraction:													
	Establishments.....number..	1,631	1,566	515	-	-	515	-	-	-	-	73	978	65
	Employees.....1,000..	20.6	20.5	(D)	-	-	(D)	-	-	-	-	(D)	12.0	.1
	Value added in mining..mil.dol..	1,253.6	1,257.6	(D)	-	-	(D)	-	-	-	-	(D)	155.2	-4.0
131	Crude petroleum and natural gas:													
	Establishments.....number..	770	705	515	-	-	515	-	-	-	-	-	190	65
	Employees.....1,000..	9.0	8.9	(D)	-	-	(D)	-	-	-	-	-	(D)	.1
	Value added in mining..mil.dol..	1,052.3	1,056.3	(D)	-	-	(D)	-	-	-	-	-	(D)	-4.0
1321	Natural gas liquids:													
	Establishments.....number..	74	74	-	-	-	-	-	-	-	-	73	1	-
	Employees.....1,000..	1.4	1.4	-	-	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	56.7	56.7	-	-	-	-	-	-	-	-	(D)	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
13	Oil and gas extraction--Con.													
138	Oil and gas field services:													
	Establishments.....number..	787	787	-	-	-	-	-	-	-	-	-	787	-
	Employees.....1,000..	10.1	10.1	-	-	-	-	-	-	-	-	-	10.1	-
	Value added in mining..mil.dol..	144.7	144.7	-	-	-	-	-	-	-	-	-	144.7	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	446	438	87	12	74	1	248	25	205	18	7	96	8
	Employees.....1,000..	10.3	(D)	1.1	.6	(D)	(D)	8.6	5.1	3.0	.5	(D)	.5	(D)
	Value added in mining..mil.dol..	196.4	(D)	18.0	10.9	(D)	(D)	163.5	99.1	57.8	6.5	(D)	6.5	(D)
141	Dimension stone:													
	Establishments.....number..	18	18	17	-	17	-	1	-	1	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.3	.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	62	61	3	-	3	-	57	3	54	-	1	-	1
	Employees.....1,000..	.5	(D)	(D)	-	(D)	-	.5	(D)	(D)	-	(D)	-	(D)
	Value added in mining..mil.dol..	7.7	(D)	(D)	-	(D)	-	7.3	(D)	(D)	-	(D)	-	(D)
144	Sand and gravel:													
	Establishments.....number..	175	175	8	-	8	-	88	-	73	15	3	76	-
	Employees.....1,000..	1.3	1.3	(Z)	-	(Z)	-	1.1	-	(D)	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	19.0	19.0	.4	-	.4	-	15.2	-	(D)	(D)	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	36	36	20	2	17	1	16	-	16	-	-	-	-
	Employees.....1,000..	.9	.9	(D)	(D)	.1	(D)	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	15.4	15.4	(D)	(D)	1.3	(D)	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	56	51	18	5	13	-	28	15	10	3	3	2	5
	Employees.....1,000..	6.3	6.2	.7	.5	.2	-	5.4	(D)	(D)	(D)	(D)	(D)	(Z)
	Value added in mining..mil.dol..	132.2	124.5	13.3	10.4	2.9	-	110.7	(D)	(D)	(D)	(D)	(D)	7.6
1481	Nonmetallic minerals services:													
	Establishments.....number..	17	17	-	-	-	-	-	-	-	-	-	17	-
	Employees.....1,000..	.2	.2	-	-	-	-	-	-	-	-	-	.2	-
	Value added in mining..mil.dol..	3.4	3.4	-	-	-	-	-	-	-	-	-	3.4	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	82	80	21	5	16	-	58	7	51	-	-	1	2
	Employees.....1,000..	1.0	(D)	(D)	(D)	(Z)	-	.9	.3	.6	-	-	(D)	(D)
	Value added in mining..mil.dol..	18.4	(D)	(D)	(D)	.6	-	17.4	4.0	13.4	-	-	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Mountain Division, total.....	2,830	605	-	148	1,631	446
0 to 4 employees.....	1,581	322	-	77	965	217
5 to 9 employees.....	385	79	-	16	196	94
10 to 19 employees.....	328	59	-	16	191	62
20 to 49 employees.....	299	49	-	21	189	40
50 to 99 employees.....	102	22	-	7	61	12
100 to 249 employees.....	82	36	-	9	25	12
250 to 499 employees.....	30	20	-	2	3	5
500 to 999 employees.....	19	14	-	-	.1	4
1,000 to 2,499 employees.....	4	4	-	-	-	-

Standard notes: - Represents zero.

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,921	402	40.4	350.3	27.8	57.7	222.8	1,619.3
1963	[1]2,370	330	38.4	279.0	28.9	57.8	197.1	1,353.3
1958	2,235	326	38.4	238.2	27.2	55.6	149.9	1,278.7
1954[2]	2,962	376	45.5	233.8	34.6	69.7	163.9	[3]1,365.8
Including operations in manufactures:								
1967	2,058	423	41.8	360.1	29.2	60.4	232.2	1,656.5
1963	2,589	354	40.6	290.2	31.0	62.1	208.0	1,397.2
1958	2,411	342	39.9	245.4	28.6	58.4	157.0	1,313.2
1954[4]	3,068	388	46.4	237.6	35.5	71.5	167.7	1,383.5
1939[5]	[6]2,354	(NA)	46.4	85.1	38.8	77.8	64.4	333.3
1919[7]	1,290	(NA)	31.4	52.8	28.3	(NA)	46.1	144.7
1909[7]	3,365	(NA)	37.9	35.9	34.8	(NA)	31.7	52.0
1902[8]	[6]2,775	(NA)	24.1	21.6	[9]21.6	(NA)	18.6	27.4
Excluding oil and gas extraction industries:								
1967	1,051	177	16.8	137.0	12.8	25.9	98.8	372.9
1963	1,709	201	19.1	124.4	15.5	32.1	96.7	333.8
1958	1,455	180	16.5	92.4	13.1	28.0	69.6	262.2
1954[4]	2,081	188	18.7	88.9	15.2	31.7	69.4	[10]213.3
1939[5]	[6]1,102	(NA)	21.2	34.4	19.0	41.6	29.0	75.2
1929[11]	786	(NA)	16.1	26.2	14.4	(NA)	21.9	41.5
1919[7]	874	(NA)	17.1	26.4	15.9	(NA)	23.6	37.7
1909[7]	2,855	(NA)	29.8	26.9	27.9	(NA)	24.1	40.5
1902[12]	[6]2,470	(NA)	22.5	20.0	[9]20.5	(NA)	17.5	24.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[13] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[14]603.2	([14])	280.7	([14])	1,944.7	558.9	(NA)
1963	232.6	150.4	167.7	64.2	1,699.3	268.9	38.5
1958	[15]181.1	[15]108.7	116.6	50.1	1,557.1	178.0	37.8
1954	181.0	[3]29.4	146.5	76.3	[3]1,565.9	233.2	39.9
Including operations in manufactures:							
1967	[16]890.8	([16])	([16])	([16])	1,988.8	(NA)	(NA)
1963	[17]243.5	150.6	[17]167.7	[18]64.2	1,754.2	[18]269.0	[18]38.5
1958	[17]188.3	[15]108.7	[17]116.6	[18]50.1	1,598.9	[18]178.1	[18]37.8
1954[4]	[17]185.1	[3]29.4	[17]146.5	[18]76.3	1,587.6	[18]233.2	[18]39.9
1939[5]	46.4	(NA)	20.8	(NA)	400.4	(NA)	29.4
1919[7]	47.3	.9	2.0	(NA)	194.9	(NA)	[19]22.2
1909[7]	31.6	2.9	2.5	(NA)	89.0	(NA)	(NA)
1902[8]	8.0	(NA)	.8	(NA)	36.4	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[16]154.2	([16])	([16])	([16])	473.2	(NA)	(NA)
1963	[17]99.4	1.4	[17]12.0	[18]27.8	433.8	[18]40.6	[18]8.1
1958	[17]77.2	[15]2.2	[17]10.7	[18]14.5	335.8	[18]30.9	[18]7.9
1954[4]	[17] [20]63.1	[3] [20]5.4	[17]11.5	[18]20.3	[10]281.8	[18]31.6	[18]6.5
1939[5]	21.9	(NA)	.5	(NA)	97.5	(NA)	3.3
1929[11]	13.1	(NA)	.9	2.8	55.5	(NA)	1.6
1919[7]	16.8	.4	1.0	(NA)	55.9	(NA)	[19]2.5
1909[7]	14.1	2.9	2.1	(NA)	59.7	(NA)	(NA)
1902[12]	6.5	(NA)	.5	(NA)	31.4	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

(Footnotes for table 1.--Pacific Division--Continued)

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 490 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Includes data for one crushed stone quarry in Hawaii operated as part of an establishment primarily producing ready-mixed concrete.

[3]Excludes data for the Uranium-Radium-Vanadium Ores Industry. For minerals received for preparation at natural gas liquids plants, excludes the cost of natural gas processed, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[4]Excludes data for sand and gravel mining operations in manufacturing establishments.

[5]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operations in California was $47 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for other dimension stone operations is not available. For "Excluding oil and gas extraction industries," includes data for 2 establishments in Washington in the Crude Petroleum and Natural Gas Industry. Excludes figures for Alaska and Hawaii.

[6]Represents number of mines and quarries, number of natural gas liquids plants, and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[7]Excludes data for sand and gravel mining operations and for stone quarries operated as parts of cement and lime establishments. The value of products of such establishments in 1929 was about $12 million. See also footnote 11. For "Excluding oil and gas extraction industries," for 1919, includes data for 2 nonproducing establishments in Washington and 1 establishment in Alaska in the Crude Petroleum and Natural Gas Industry and for one such nonproducing establishment in Oregon in 1909. For Alaska in 1919, exludes data for 6 nonproducing operations.

[8]Excludes data for sand, gravel, common clay, and shale mining operations. Includes data for 2 cement plants and for lime plants producing lime valued at $602 thousand. Excludes figures for Alaska and Hawaii.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]Excludes data for nonmetallic minerals mining in Alaska. See also footnote 3.

[11]Excludes data for common clay and shale mining operations. In 1939, there were 47 such mines with products valued at $410 thousand. Excludes figures for Alaska and Hawaii.

[12]Includes data for nonproducing crude petroleum establishments at which expenditures were about $500 thousand. See also footnote 8.

[13]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[14]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[15]For Washington, the cost of minerals received for preparation in the Metal Mining and Nonmetallic Minerals Mining Industries is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[16]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[17]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For 1958, see also footnote 15.

[18]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[19]Excludes purchased electric energy. For "All operations" in 1939, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hrs. equivalent of energy used; but for "Excluding oil and gas extraction industries" in 1929, to 15 percent.

[20]Figures for minerals received for preparation in the Nonmetallic Minerals Mining Industries in California are included with those for supplies, purchases for resale, and purchased fuels and electric energy.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,921	402	40.4	350.3	27.8	57.7	222.8	1,619.3	884.3	1,944.7	558.9	38.4	1,353.3
10	Metal mining	204	23	3.2	27.0	2.6	5.4	20.2	71.7	40.9	103.4	9.2	2.5	45.9
1011	Iron ores	2	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	19.9
1021	Copper ores	13	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores	15	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1033	Zinc ores	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	89	4	.4	3.0	.3	.7	1.9	3.5	1.3	4.3	.5	(NA)	(NA)
1042	Lode gold	36	2	.2	1.7	.1	.3	.9	1.3	(D)	1.6	(D)	.3	3.5
1043	Placer gold	40	2	.2	1.1	.2	.4	.9	2.0	(D)	2.5	(D)	.3	5.8
106	Ferroalloy ores, except vanadium	9	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	6.2
1064	Tungsten ores	6	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1069	Ferroalloy ores, n.e.c.	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	17	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	59	8	.7	5.1	.6	1.3	4.1	11.5	7.1	15.4	3.2	.4	8.0
1092	Mercury ores	44	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.1
1099	Metallic ores, n.e.c.	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]--Con.													
12	Bituminous coal and lignite mining	16	4	.3	2.9	.2	.5	2.5	5.5	3.3	7.1	1.6	.4	6.2
121	Bituminous coal and lignite mining	16	4	.3	2.9	.2	.5	2.5	5.5	3.3	7.1	1.6	.4	6.2
1211	Bituminous coal	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	6.2
1213	Bituminous and lignite mining services, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	1,004	246	25.0	222.9	16.4	34.5	133.4	1,284.0	736.6	1,515.6	505.0	21.5	1,063.4
131	Crude petroleum and natural gas	473	98	14.6	132.1	7.6	15.3	59.4	1,058.3	499.6	1,094.6	463.3	13.5	914.0
	Crude petroleum	426	89	13.8	125.7	7.1	14.4	56.2	930.4	471.5	1,002.1	399.8	12.9	874.3
	Natural gas	47	9	.8	6.4	.5	.9	3.2	127.8	28.1	92.5	63.4	.6	39.7
1321	Natural gas liquids	51	13	.8	6.7	.7	1.4	6.0	38.6	153.8	187.4	5.1	1.3	63.9
138	Oil and gas field services	480	135	9.6	84.1	8.1	17.8	68.1	187.1	83.1	233.7	36.7	6.6	85.5
1381	Drilling oil and gas wells	113	43	3.5	32.4	3.0	6.5	26.1	60.9	35.5	80.5	15.6	3.0	38.8
1382	Oil and gas exploration services	56	15	1.0	8.0	.7	1.6	5.6	15.7	5.6	19.3	2.1	1.0	18.1
1389	Oil and gas field services, n.e.c.	311	77	5.1	43.7	4.4	9.7	36.4	110.5	42.0	133.9	19.1	2.6	28.6
14	Nonmetallic minerals, except fuels	697	129	11.9	97.5	8.5	17.3	66.1	258.5	103.1	318.7	43.1	14.0	237.8
141	Dimension stone	28	-	.1	.3	.1	.1	.3	.8	.2	1.0	.1	.1	1.2
	Dimension stone, n.e.c.	24	-	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8
142	Crushed and broken stone	188	33	2.3	18.0	2.0	4.0	15.1	45.3	20.2	58.8	6.8	2.7	38.0
1422	Crushed and broken limestone	48	7	.5	3.6	.5	1.0	3.1	8.0	4.7	11.1	1.6	.6	6.6
1423	Crushed and broken granite	18	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	8.8
1429	Crushed and broken stone, n.e.c.	122	22	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	22.7
144	Sand and gravel	338	67	4.6	37.4	3.3	6.5	26.5	90.4	41.6	114.1	17.8	6.5	105.4
1442	Construction sand and gravel	325	63	4.4	35.9	3.2	6.2	25.4	84.5	39.7	106.8	17.4	(NA)	(NA)
	Glass sand	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Industrial sand, n.e.c.	5	1	.1	.5	(Z)	.1	.2	1.0	.4	1.3	(Z)	(NA)	(NA)
145	Clay and related minerals	30	5	.3	2.2	.3	.6	1.8	4.6	3.2	7.2	.5	(D)	(D)
1452	Bentonite	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	19	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.0
147	Chemical and fertilizer minerals	21	10	3.1	27.5	1.6	3.4	13.0	80.9	21.0	87.0	14.9	(D)	(D)
1474	Potash, soda, and borate minerals	10	8	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1475	Phosphate rock	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	13	1	.1	.8	.1	.2	.8	1.5	1.2	2.4	.3	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	79	13	1.4	11.3	1.2	2.4	8.6	35.1	15.7	48.2	2.6	1.3	26.4
1492	Gypsum	8	1	.1	.4	(Z)	.1	.2	1.3	.4	1.6	.1	.1	1.8
1493	Mica	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1495	Pumice and pumicite	12	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1496	Talc, soapstone, and pyrophyllite	16	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1499	Nonmetallic minerals, n.e.c.	27	7	1.0	8.3	.8	1.8	6.4	27.8	12.7	38.8	1.7	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	134	21	1.4	9.6	1.4	2.7	9.4	37.2	6.9	44.1	[2]0.1	2.2	43.9
142	Crushed and broken stone	33	11	0.7	4.6	0.7	1.3	4.6	17.9	4.1	22.0	(NA)	0.9	18.8
144	Sand and gravel	69	7	0.5	3.6	0.5	1.0	3.5	14.6	1.7	16.2	(NA)	0.7	16.4
145	Clay and related minerals, n.e.c.	25	-	(Z)	0.2	(Z)	0.1	0.2	1.0	0.3	1.3	(NA)	0.3	3.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1]For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2]Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Pacific division:													
	Establishments.....number..	1,921	1,837	433	69	118	246	511	18	442	51	72	821	84
	Employees.....1,000..	40.4	40.1	12.4	.2	1.6	10.7	11.4	1.1	7.9	2.4	1.0	15.3	.3
	Value added in mining..mil.dol..	1,619.3	1,633.0	1,084.8	2.6	64.2	1,018.0	273.3	20.7	206.6	46.0	41.6	233.3	-8.0
10	Metal mining:													
	Establishments.....number..	204	179	68	52	16	-	87	11	72	4	-	24	25
	Employees.....1,000..	3.2	(D)	1.2	(D)	(D)	-	1.8	(D)	(D)	.4	-	(D)	(D)
	Value added in mining..mil.dol..	71.7	(D)	40.3	(D)	(D)	-	30.3	(D)	(D)	2.7	-	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	13	7	4	-	4	-	1	-	1	-	-	2	6
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	15	14	9	9	-	-	3	3	-	-	-	2	1
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	.2	.2	-	-	(D)	(D)	-	-	-	(D)	(D)
104	Gold and silver ores:													
	Establishments.....number..	89	76	36	36	-	-	38	2	35	1	-	2	13
	Employees.....1,000..	.4	.4	(Z)	(Z)	-	-	(D)	(D)	.2	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	3.5	3.5	.2	.2	-	-	(D)	(D)	2.0	(D)	-	(D)	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	9	9	6	3	3	-	3	2	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	.1	(D)	(D)	-	(D)	(D)	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	6.7	(D)	(D)	-	(D)	(D)	-	(D)	-	-	-
1081	Metal mining services:													
	Establishments.....number..	17	17	-	-	-	-	-	-	-	-	-	17	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	59	54	13	4	9	-	40	4	34	2	-	1	5
	Employees.....1,000..	.7	.7	(Z)	(Z)	(Z)	-	(D)	(D)	.3	(D)	-	(D)	-
	Value added in mining..mil.dol..	11.5	11.5	.4	.2	.2	-	(D)	(D)	5.8	(D)	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	16	15	7	5	2	-	4	2	2	-	1	3	1
	Employees.....1,000..	.3	(D)	(Z)	(D)	(D)	-	.2	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	5.5	(D)	.1	(D)	(D)	-	4.1	(D)	(D)	-	(D)	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	16	15	7	5	2	-	4	2	2	-	1	3	1
	Employees.....1,000..	.3	(D)	(Z)	(D)	(D)	-	.2	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	5.5	(D)	.1	(D)	(D)	-	4.1	(D)	(D)	-	(D)	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	1,004	949	242	-	-	242	-	-	-	-	50	657	55
	Employees.....1,000..	25.0	(D)	10.6	-	-	10.6	-	-	-	-	(D)	13.0	(D)
	Value added in mining..mil.dol..	1,283.6	(D)	1,055.5	-	-	1,055.5	-	-	-	-	(D)	223.2	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	473	419	242	-	-	242	-	-	-	-	-	177	54
	Employees.....1,000..	14.6	14.3	10.6	-	-	10.6	-	-	-	-	-	3.6	.3
	Value added in mining..mil.dol..	1,058.3	1,065.8	1,055.5	-	-	1,055.5	-	-	-	-	-	10.3	-7.6
1321	Natural gas liquids:													
	Establishments.....number..	51	50	-	-	-	-	-	-	-	-	50	-	1
	Employees.....1,000..	.8	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	38.6	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967–Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
13	Oil and gas extraction--Con.													
138	Oil and gas field services:													
	Establishments.....number..	480	480	-	-	-	-	-	-	-	-	-	480	-
	Employees.....1,000..	9.6	9.6	-	-	-	-	-	-	-	-	-	9.6	-
	Value added in mining..mil.dol..	186.7	186.7	-	-	-	-	-	-	-	-	-	186.7	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	697	694	116	12	100	4	420	5	368	47	21	137	3
	Employees.....1,000..	11.9	(D)	.6	.1	.5	(Z)	9.4	.1	7.2	2.1	(D)	1.8	(D)
	Value added in mining..mil.dol..	258.5	(D)	9.9	1.8	7.7	.3	238.0	1.9	192.9	43.3	(D)	7.7	(D)
141	Dimension stone:													
	Establishments.....number..	28	28	27	-	27	-	1	-	1	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.8	.8	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	188	186	13	1	12	-	164	2	162	-	7	2	2
	Employees.....1,000..	2.3	(D)	.1	(D)	(D)	-	2.1	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	45.3	(D)	3.0	(D)	(D)	-	41.2	(D)	(D)	-	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	338	337	23	-	20	3	190	-	149	41	10	114	1
	Employees.....1,000..	4.6	(D)	.1	-	(D)	(D)	3.7	-	3.0	.7	.1	.7	(D)
	Value added in mining..mil.dol..	90.4	(D)	1.7	-	(D)	(D)	81.7	-	70.0	11.8	1.3	5.7	(D)
145	Clay and related minerals:													
	Establishments.....number..	30	30	17	-	16	1	12	-	12	-	1	-	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	(D)	.2	-	.2	-	(D)	-	-
	Value added in mining..mil.dol..	4.6	4.6	(D)	-	(D)	(D)	3.0	-	3.0	-	(D)	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	21	21	7	-	7	-	9	1	4	4	-	5	-
	Employees.....1,000..	3.1	3.1	(Z)	-	(Z)	-	(D)	(D)	.8	(D)	-	(D)	-
	Value added in mining..mil.dol..	80.9	80.9	.2	-	.2	-	(D)	(D)	49.2	(D)	-	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	13	13	-	-	-	-	-	-	-	-	-	13	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining..mil.dol..	1.5	1.5	-	-	-	-	-	-	-	-	-	1.5	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	79	79	29	11	18	-	44	2	40	2	3	3	-
	Employees.....1,000..	1.4	1.4	.1	(D)	(D)	-	1.2	(D)	1.1	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	35.1	35.1	2.7	(D)	(D)	-	31.4	(D)	31.2	(D)	(D)	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation of Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Pacific division, total.....	1,921	204	-	16	1,004	697
0 to 4 employees.....	971	141	-	10	496	324
5 to 9 employees.....	286	21	-	2	137	126
10 to 19 employees.....	262	19	-	-	125	118
20 to 49 employees.....	232	12	-	2	130	88
50 to 99 employees.....	92	6	-	2	59	25
100 to 249 employees.....	56	3	-	-	43	10
250 to 499 employees.....	15	1	-	-	11	3
500 to 999 employees.....	4	-	-	-	1	3
1,000 to 2,499 employees.....	3	1	-	-	2	-

Standard Notes: - Represents zero.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 413-080

1967 CENSUS OF Mineral Industries



MIC67(2)-1

AREA STATISTICS

ALABAMA

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

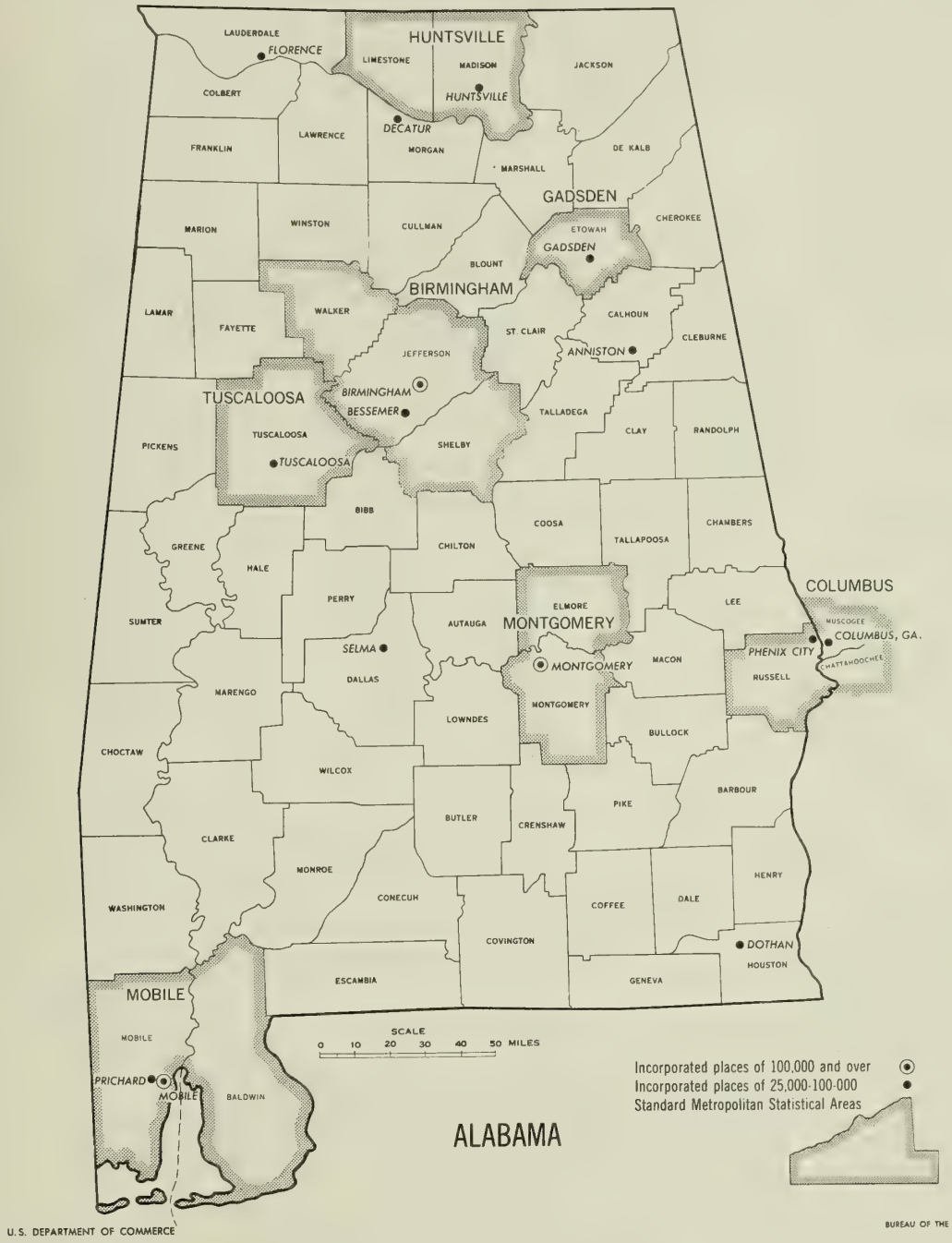

HUNTSVILLE
LAUDERDALE
FLORENCE
LIMESTONE
MADISON
JACKSON
HUNTSVILLE
COLBERT
DECATUR
LAWRENCE
FRANKLIN
MORGAN
MARSHALL
DE KALB
GADSDEN
MARION
WINSTON
CULLMAN
ETOWAH
CHEROKEE
GADSDEN
BLOUNT
BIRMINGHAM
LAMAR
FAYETTE
WALKER
CALHOUN
ST. CLAIR
CLEBURNE
ANNISTON
JEFFERSON
TUSCALOOSA
BIRMINGHAM
BESSEMER
TALLADEGA
CLAY
RANDOLPH
PICKENS
TUSCALOOSA
TUSCALOOSA
SHELBY
BIBB
COOSA
TALLAPOOSA
CHAMBERS
GREENE
HALE
CHILTON
COLUMBUS
PERRY
ELMORE
LEE
SUMTER
AUTAUGA
MONTGOMERY
MUSCOGEE
COLUMBUS, GA.
SELMA
PHENIX CITY
MONTGOMERY
MACON
CHATTAHOOCHEE
DALLAS
RUSSELL
MARENGO
LOWNDES
MONTGOMERY
BULLOCK
CHOCTAW
WILCOX
BARBOUR
PIKE
BUTLER
CRENSHAW
CLARKE
MONROE
HENRY
CONECUH
COFFEE
DALE
WASHINGTON
COVINGTON
DOTHAN
HOUSTON
ESCAMBIA
GENEVA
MOBILE
MOBILE
SCALE
0 10 20 30 40 50 MILES
PRICHARD
MOBILE
BALDWIN
Incorporated places of 100,000 and over
Incorporated places of 25,000-100-000
Standard Metropolitan Statistical Areas
ALABAMA
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]294	83	7.9	51.6	7.1	13.8	44.0	151.1
1963	[1]371	87	8.9	45.8	8.0	15.0	38.7	119.0
1958	316	83	11.9	55.1	10.6	17.5	45.6	127.1
1954	378	88	14.4	54.9	12.9	22.0	44.8	[2]93.6
Including operations in manufactures:								
1967	322	89	8.3	53.7	7.5	14.6	46.0	159.3
1963	416	98	9.5	48.5	8.6	16.2	41.3	126.7
1958	357	91	12.6	57.4	11.2	18.7	47.7	138.3
1954[3]	[5]413	98	15.1	57.3	13.6	23.5	46.9	[2]100.9
1939[4]	[5]341	(NA)	27.0	26.4	25.8	39.8	23.8	33.8
1929[6]	222	(NA)	33.7	34.9	32.0	(NA)	30.9	43.3
1919[7]	264	(NA)	34.6	40.2	32.6	(NA)	36.2	49.1
1909[7]	225	(NA)	30.1	16.0	28.3	(NA)	14.3	19.9
1902[8]	[5]265	(NA)	20.1	11.3	[9]19.2	(NA)	10.4	15.1

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	59.6	([11])	6.5	([11])	196.3	20.9	(NA)
1963	38.4	6.3	11.5	9.1	168.7	15.1	1.5
1958	[12]63.8	([12])	8.5	10.4	196.0	13.7	1.5
1954	[12]39.1	([12])	3.8	8.9	[2]37.1	8.2	1.3
Including operations in manufactures:							
1967	[13]68.2	([13])	([13])	([13])	206.6	(NA)	(NA)
1963	[14]41.2	6.3	[14]11.5	[15]9.1	178.6	[15]16.1	[15]1.5
1958	[12] [14]66.0	([11])	[14] 8.5	[15]10.4	209.4	[15]13.7	[15]1.5
1954[3]	[14]27.1	13.0	[14] 3.8	[15]8.9	[2]145.9	[15]8.3	[15]1.3
1939[4]	7.7	(NA)	.3	(NA)	41.9	(NA)	1.8
1929[6]	11.2	(NA)	.1	1.9	54.7	(NA)	2.6
1919[7]	10.6	-	.2	(NA)	59.9	(NA)	[16]6.1
1909[7]	3.6	.1	.8	(NA)	24.4	(NA)	(NA)
1902[8]	2.0	(NA)	.3	(NA)	17.4	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 51 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[4]Excludes data for dimension stone dressing plants operated in conjunction with quarries.

[5]Represents number of mines and quarries.

[6]Excludes data for common clay and shale and crude petroleum and natural gas extraction operations, if any. For 1939, there were 15 such clay and shale mines with products value at $130 thousand. No oil and gas field operations were reported for 1939.

[7]Excludes data for sand, gravel, common clay, and shale mining operations and stone quarries operated as parts of cement and lime plants. In 1929, there were 10 such sand and gravel establishments, with products valued at $1,303 thousand, such stone quarries at 7 cement plants, with products valued at $621 thousand, and such stone quarries at 5 lime plants. For 1919, excludes data for 2 nonproducing establishments.

[8]Excludes data for sand, gravel, common clay, and shale operations. Includes data for 1 cement plant and for lime plants producing lime valued at $236 thousand.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Figures for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For crushed and broken stone, sand and gravel, clay mining and for 1963, dimension stone operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes data for crushed and broken stone, sand and gravel, clay mining, and, for 1963, dimension stone operations in manufacturing establishments.

[16]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 10 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	294	83	7.9	51.6	7.1	13.8	44.0	151.1	66.1	196.3	20.9	8.9	119.0
10	Metal mining	21	9	.7	4.9	.6	1.3	4.1	9.1	4.2	12.5	.8	1.0	11.5
1011	Iron ores	16	5	.6	4.4	.5	1.1	3.7	7.8	2.9	10.2	.5	(D)	(D)
1051	Bauxite and other aluminum ores	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	129	39	5.0	34.6	4.5	8.3	29.7	93.3	41.5	121.6	13.3	5.7	68.7
121	Bituminous coal and lignite mining	129	39	5.0	34.6	4.5	8.3	29.7	93.3	41.5	121.6	13.3	5.7	68.7
1211	Bituminous coal	125	38	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	5.7	67.8
1213	Bituminous and lignite mining services, n.e.c.	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.0
13	Oil and gas extraction	44	4	.4	1.8	.3	.5	1.5	20.2	6.0	23.7	2.5	.4	19.4
131	Crude petroleum and natural gas	21	1	.1	.7	.1	.1	.4	17.6	4.3	20.1	1.8	.1	15.6
1312	Crude petroleum	20	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	23	3	.3	1.2	.2	.4	1.0	2.6	1.6	3.7	.6	.3	3.8
	Drilling oil and gas wells	9	1	.1	.5	.1	.2	.5	1.3	1.2	2.0	.4	.2	3.5
1389	Oil and gas field services, n.e.c.	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	100	31	1.9	10.3	1.7	3.6	8.7	28.5	14.4	38.5	4.4	1.8	19.4
142	Crushed and broken stone	28	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	11.4
1422	Crushed and broken limestone	26	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	49	10	.5	2.2	.4	.9	1.9	5.5	2.7	7.5	.7	.6	5.3
1442	Construction sand and gravel	46	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	15	3	.1	1.2	.1	.3	1.0	4.7	1.9	6.0	.6	.1	1.2
1459	Clay and related minerals, n.e.c.	7	2	.1	.4	.1	.1	.4	1.8	.9	2.3	.3	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1493	Mica	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	28	6	0.4	2.1	0.4	0.8	2.0	8.2	2.1	10.3	(NA)	0.6	7.7
142	Crushed and broken stone	11	3	0.2	0.9	0.2	0.4	0.9	4.5	1.3	5.8	(NA)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	13	-	0.1	0.2	0.1	0.1	0.2	0.7	0.3	1.0	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Alabama:													
	Establishments.....number..	294	287	126	77	37	12	98	12	72	14	3	60	7
	Employees.....1,000..	7.9	7.9	(D)	.5	(D)	(D)	(D)	3.4	2.0	(D)	(D)	(D)	(Z)
	Value added in mining...mil.dol	151.1	151.5	(D)	4.0	(D)	(D)	(D)	65.3	33.7	(D)	(D)	(D)	-.1
10	Metal mining:													
	Establishments.....number..	21	20	8	-	8	-	9	1	8	-	1	2	1
	Employees.....1,000..	.7	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining.mil.dol..	9.1	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	(D)	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	16	15	6	-	6	-	8	1	7	-	-	1	1
	Employees.....1,000..	.6	(D)	(D)	-	(D)	-	(D)	(D)	.2	-	-	(D)	(D)
	Value added in mining.mil.dol..	7.8	(D)	(D)	-	(D)	-	(D)	(D)	.9	-	-	(D)	(D)
1051	Bauxite and other aluminum ores:													
	Establishments.....number..	4	4	2	-	2	-	1	-	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	129	129	93	76	16	1	28	11	10	7	2	6	-
	Employees.....1,000..	5.0	5.0	.8	(D)	(D)	(D)	4.0	(D)	.4	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	93.3	93.3	11.1	(D)	(D)	(D)	80.9	(D)	10.4	(D)	(D)	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	129	129	93	76	16	1	28	11	10	7	2	6	-
	Employees.....1,000..	5.0	5.0	.8	(D)	(D)	(D)	4.0	(D)	.4	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	93.3	93.3	11.1	(D)	(D)	(D)	80.9	(D)	10.4	(D)	(D)	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	44	38	11	-	-	11	-	-	-	-	-	27	6
	Employees.....1,000..	.4	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	20.2	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	21	15	11	-	-	11	-	-	-	-	-	4	6
	Employees.....1,000..	.1	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	17.6	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	23	23	-	-	-	-	-	-	-	-	-	23	-
	Employees.....1,000..	.3	.3	-	-	-	-	-	-	-	-	-	.3	-
	Value added in mining.mil.dol..	2.6	2.6	-	-	-	-	-	-	-	-	-	2.6	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	100	100	14	1	13	-	61	-	54	7	-	25	-
	Employees.....1,000..	1.9	1.9	.1	(D)	(D)	-	1.6	-	(D)	(D)	-	.1	-
	Value added in mining.mil.dol..	28.5	28.5	1.9	(D)	(D)	-	24.7	-	(D)	(D)	-	1.9	-
141	Dimension stone:													
	Establishments.....number..	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	28	28	-	-	-	-	28	-	28	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	49	49	3	-	3	-	21	-	15	6	-	25	-
	Employees.....1,000..	.5	.5	(D)	-	(D)	-	(D)	-	.2	(D)	-	.1	-
	Value added in mining.mil.dol..	5.5	5.5	(D)	-	(D)	-	(D)	-	1.7	(D)	-	1.9	-
145	Clay and related minerals:													
	Establishments.....number..	15	15	8	1	7	-	7	-	7	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	(D)	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	4.7	4.7	(D)	(D)	(D)	-	(D)	-	(D)	-	-	-	-
149	Miscellaneous nonmetallic minerals minerals:													
	Establishments.....number..	6	6	1	-	1	-	5	-	4	1	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	294	371	Cost of supplies, total.....million dollars..	66.1	65.3
With 0 to 19 employees.....do....	210	284	Supplies used, minerals received for preparation, and purchased machinery.....do....	51.2	(NA)
With 20 to 99 employees.....do....	71	73	Cost of resales.....do....	.2	(NA)
With 100 or more employees.....do....	13	14	Purchased fuels consumed.....do....	3.7	(NA)
All employees (average for year).....1,000..	7.9	8.9	Electric energy:		
Payroll (all employees), total for year.....million dollars..	51.6	45.8	Quantity purchased.....million kw.-hrs..	377.2	(NA)
			Cost.....million dollars..	4.5	(NA)
			Generated less sold.....million kw.-hrs..	(Z)	(NA)
			Contract work.....million dollars..	6.5	11.5
Production, development, and exploration workers:					
Average for the year.....1,000..	7.1	8.0	Value of shipments and receipts (including resales), total.....do....	196.3	168.7
March.....do....	7.1	(NA)	Value of resales.....do....	.2	(NA)
May.....do....	7.1	(NA)			
August.....do....	7.1	(NA)			
November.....do....	7.1	(NA)	Value added in mining.....do....	151.1	119.0
Man-hours.....millions..	13.8	15.0	Capital expenditures (except land and mineral rights), total.....do....	20.9	15.6
Wages.....million dollars..	44.0	38.7	Mineral development and exploration.....do....	1.8	3.8
			New structures and additions.....do....	5.1	
Supplemental labor cost not included in payroll.....do..	6.8	(NA)	New machinery and equipment.....do....	12.8	11.8
			Used plant and equipment.....do....	1.2	
			Mineral development and exploration expenditures, total.....do....	4.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	2.8	(NA)	Capitalized.....do....	1.8	3.8
Payments for voluntary programs.....do..	4.0	(NA)	Expensed.....do....	3.0	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Alabama, total	294	83	7.9	51.6	7.1	13.8	44.0	151.1	66.1	196.3	20.9	8.9	119.0
	COUNTIES[2]													
	Colbert county, total	5	4	.1	.5	.1	.2	.4	1.3	.7	1.9	.1	(D)	(D)
14	Nonmetallic minerals, except fuels	5	4	.1	.5	.1	.2	.4	1.3	.7	1.9	.1	(D)	(D)
	Franklin county, total	5	2	.2	.9	.2	.4	.8	1.8	1.0	2.5	.3	.1	1.0
10	Metal mining	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jefferson county, total	63	19	3.6	26.9	3.2	6.1	22.3	66.4	28.3	86.5	8.2	4.2	49.3
10	Metal mining	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1011	Iron ores	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	48	13	3.1	22.5	2.8	5.1	18.7	57.7	24.6	74.9	7.5	3.5	40.6
121	Bituminous coal and lignite mining	48	13	3.1	22.5	2.8	5.1	18.7	57.7	24.6	74.9	7.5	(D)	(D)
14	Nonmetallic minerals, except fuels	11	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	4	3	.1	1.0	.1	.3	.8	1.9	1.5	3.0	.5	(D)	(D)
	Marion county, total	21	3	.2	1.2	.2	.3	.9	2.1	1.0	2.9	.2	(D)	(D)
12	Bituminous coal and lignite mining	20	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	20	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Mobile county, total	19	3	.2	1.3	.2	.4	1.1	11.4	2.1	13.1	.4	.4	18.7
13	Oil and gas extraction	15	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	18.3
138	Oil and gas field services	10	2	.1	.4	.1	.2	.4	.7	.2	.8	.1	.3	4.1
	Morgan county, total	5	3	.1	.7	.1	.2	.5	1.4	.4	1.6	.1	.1	.4
14	Nonmetallic minerals, except fuels	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.4
142	Crushed and broken stone	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Shelby county, total	11	4	.4	1.5	.4	.8	1.3	6.4	3.0	8.2	1.2	.6	7.1
12	Bituminous coal and lignite mining	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Talladega county, total	7	6	.5	2.9	.5	1.1	2.5	6.8	(D)	9.1	(D)	.4	4.7
14	Nonmetallic minerals, except fuels	7	6	.5	2.9	.5	1.1	2.5	6.8	(D)	9.1	(D)	(D)	(D)
142	Crushed and broken stone	4	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Tuscaloosa county, total	11	3	.1	1.1	.1	.3	1.0	2.5	(D)	3.2	(D)	.2	2.2
12	Bituminous coal and lignite mining	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.4
121	Bituminous coal and lignite mining	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.4
	Walker county, total	38	14	1.1	8.0	1.0	1.9	7.4	23.7	10.3	29.9	4.2	1.3	21.6
12	Bituminous coal and lignite mining	36	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	21.6
121	Bituminous coal and lignite mining	36	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Alabama, total	294	21	-	129	44	100
0 to 4 employees	116	5	-	56	22	33
5 to 9 employees	38	3	-	13	7	15
10 to 19 employees	56	4	-	21	10	21
20 to 49 employees	59	6	-	25	5	23
50 to 99 employees	12	2	-	4	-	6
100 to 249 employees	6	-	-	4	-	2
250 to 499 employees	6	1	-	5	-	-
500 to 999 employees	1	-	-	1	-	-
Autauga county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Baldwin county, total	5	-	-	-	3	2
0 to 19 employees	5	-	-	-	3	2
Barbour county, total	5	4	-	1	-	-
0 to 19 employees	2	1	-	1	-	-
20 to 99 employees	3	3	-	-	-	-
Bibb county, total	3	-	-	2	-	1
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	1	-	-
Blount county, total	6	1	-	4	-	1
0 to 19 employees	4	-	-	3	-	1
20 to 99 employees	2	1	-	1	-	-
Butler county, total	2	2	-	-	-	-
0 to 19 employees	2	2	-	-	-	-
Calhoun county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Chilton county, total	5	-	-	-	1	4
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	1	-	-	-	-	1
Choctaw county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Clarke county, total	7	-	-	-	5	2
0 to 19 employees	7	-	-	-	5	2
Coffee county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Colbert county, total	5	-	-	-	-	5
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	4	-	-	-	-	4
Covington county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Crenshaw county, total	4	3	-	-	-	1
0 to 19 employees	4	3	-	-	-	1
Cullman county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Dallas county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
De Kalb county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Escambia county, total	10	-	-	-	6	4
0 to 19 employees	8	-	-	-	6	2
20 to 99 employees	2	-	-	-	-	2
Etowah county, total	7	-	-	1	-	6
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	1	-	-	1	-	-
Fayette county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Alabama-Continued						
Franklin county, total	5	2	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	2	-	-	-	-
Geneva county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Henry county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Houston county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Jackson county, total	2	-	-	1	-	1
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	1	-	-
Jefferson county, total	63	3	-	48	1	11
0 to 19 employees	44	2	-	35	1	6
20 to 99 employees	11	-	-	6	-	5
100 to 249 employees	3	-	-	3	-	-
250 employees and over	5	1	-	4	-	-
Lowndes county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Macon county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Madison county, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
Marion county, total	21	-	-	20	-	1
0 to 19 employees	18	-	-	17	-	1
20 to 99 employees	3	-	-	3	-	-
Marshall county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Mobile county, total	19	-	-	-	15	4
0 to 19 employees	16	-	-	-	13	3
20 to 99 employees	3	-	-	-	2	1
Monroe county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Montgomery county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Morgan county, total	5	-	-	1	-	4
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	3	-	-	-	-	3
Pickens county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Pike county, total	3	3	-	-	-	-
0 to 19 employees	3	3	-	-	-	-
Randolph county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Russell county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
St Clair county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Shelby county, total	11	3	-	5	-	3
0 to 19 employees	7	2	-	3	-	2
20 to 99 employees	3	1	-	1	-	1
100 to 249 employees	1	-	-	1	-	-
Sumter county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Alabama-Continued						
Talladega county, total	7	-	-	-	-	7
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	2	-	-	-	-	2
Tuscaloosa county, total	11	1	-	5	-	5
0 to 19 employees	8	1	-	2	-	5
20 to 99 employees	3	-	-	3	-	-
Walker county, total	38	-	-	36	-	2
0 to 19 employees	24	-	-	22	-	2
20 to 99 employees	12	-	-	12	-	-
250 employees and over	2	-	-	2	-	-
Washington county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Winston county, total	2	-	-	2	-	-
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	1	-	-
Offshore total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-869

1967 CENSUS OF Mineral Industries



MIC67(2)-2

AREA STATISTICS

ALASKA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.


ALASKA
CENSUS DIVISIONS AND ORGANIZED BOROUGHS
BARROW
KOBUK
NOME
UPPER YUKON
YUKON - KOYUKUK
NORTH STAR BOROUGH
SOUTHEAST FAIRBANKS
WADE HAMPTON
KUSKOKWIM
MATANUSKA - SUSITNA BOROUGH
VALDEZ - CHITINA WHITTIER
GREATER ANCHORAGE AREA BOROUGH
BETHEL
CORDOVA MC CARTHY
KENAI PENINSULA BOROUGH (NORTHWEST PART)
BRISTOL BAY
LYNN CANAL ICY STRAITS
GREATER JUNEAU BOROUGH
KENAI PENINSULA BOROUGH (SOUTHEAST PART)
BRISTOL BAY BOROUGH
GREATER SITKA BOROUGH
WRANGELL PETERSBURG
ANGOON
ALEUTIAN ISLANDS (PART)
KODIAK ISLAND BOROUGH
BRISTOL BAY (PART)
PRINCE OF WALES
OUTER KETCHIKAN
GATEWAY BOROUGH
ISLANDS
ALEUTIAN
1963 ELECTION DISTRICTS
BARROW
1968 CENSUS DIVISIONS AND ORGANIZED BOROUGHS
SCALE
0 50 100 150 200 250 300 MILES
U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]126	35	2.2	28.5	1.8	4.5	22.3	223.5
1963	[1]138	18	1.3	12.1	1.1	2.4	9.7	52.6
1958	156	11	1.0	7.5	.8	2.0	5.6	8.8
Including operations in manufactures:								
1967	130	35	(D)	(D)	(D)	(D)	(D)	(D)
1963	141	18	1.4	12.2	1.2	2.5	9.9	52.9
1958	160	9	1.0	7.6	.8	2.0	5.7	9.2
1954[2]	194	14	1.4	9.5	1.2	3.0	7.7	14.4
1919[3]	346	(NA)	2.7	5.5	2.5	(NA)	5.0	11.3
1909[3]	[4]673	(NA)	3.8	6.8	3.6	(NA)	6.4	12.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[5]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	81.9	([6])	83.5	([6])	187.6	201.3	(NA)
1963	11.1	-	30.1	2.5	62.4	33.9	.6
1958	4.4	.5	7.1	1.7	16.9	5.6	.7
Including operations in manufactures:							
1967	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1963	[7]11.1	-	[7]30.1	[8]2.5	62.8	[8]33.9	[8].6
1958	[7]4.5	.5	[7]7.1	[2]1.7	17.3	[2]5.6	[2].7
1954[2]	4.9	.1	1.7	3.3	19.8	4.6	.7
1919[3]	3.9	-	.5	(NA)	15.6	(NA)	[9].5
1909[3]	2.9	-	1.6	(NA)	16.9	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 44 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]For 1919 and 1909, the Census reports indicated that coverage was incomplete, amounting to approximately 80 percent of the estimated total value of mineral products. For 1919, also excludes nonproducing operations; 6 such operations were reported for that year with 90 production, development, and exploration workers and expenditures for development amounting to $350 thousand.

[4]Represents number of operating companies.

[5]Represents the gross value of shipments and receipts and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation.

[6]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[7]For sand and gravel and for 1963, crushed and broken stone mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resales, and purchased fuels and electric energy.

[8]Excludes data for crushed and broken stone and sand and gravel mining operations in manufacturing establishments.

[9]Excludes purchased electric energy. For 1954, the quantity of purchased electric energy amounted to less than one percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	126	35	2.2	28.5	1.8	4.5	22.3	223.5	165.4	187.6	201.3	1.3	52.6
10	Metal mining	40	3	.2	1.5	.1	.4	1.0	.9	1.1	1.7	.3	.3	5.2
104	Gold and silver ores	31	1	.1	.7	.1	.2	.5	.7	.3	.8	.2	(D)	(D)
1043	Placer gold	23	1	.1	.6	.1	.2	.4	.6	.3	.8	.1	(D)	(D)
12	Bituminous coal and lignite mining	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.0
121	Bituminous coal and lignite mining	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.0
1211	Bituminous coal	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	74	29	1.9	24.9	1.5	3.8	19.6	216.6	161.3	178.8	199.1	.8	41.4
131	Crude petroleum and natural gas	28	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	30.0
1312	Crude petroleum	26	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	46	22	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	11.4
1381	Drilling oil and gas wells	15	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1382	Oil and gas exploration services	9	7	.3	2.0	.3	.6	2.0	6.9	1.5	7.6	.7	(D)	(D)
1389	Oil and gas field services, n.e.c.	22	4	.4	6.8	.3	.8	5.7	34.4	14.8	43.4	5.8	(D)	(D)
14	Nonmetallic minerals, except fuels	7	1	.1	.3	(Z)	.1	.3	2.1	.6	2.4	.3	.1	1.0

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Alaska	4	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.3

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Alaska:													
	Establishments.....number..	126	98	15	8	2	5	25	-	25	-	1	57	28
	Employees.....1,000..	2.2	1.6	(D)	(Z)	(D)	(D)	.2	-	.2	-	(D)	1.6	.3
	Value added in mining..mil.dol..	223.5	231.6	(D)	(Z)	(D)	(D)	6.6	-	6.6	-	(D)	65.8	-8.4
10	Metal mining:													
	Establishments.....number..	40	34	9	7	2	-	21	-	21	-	-	4	6
	Employees.....1,000..	(D)	(D)	(Z)	(D)	(D)	-	.1	-	.1	-	-	(Z)	.1
	Value added in mining..mil.dol..	(D)	(D)	.1	(D)	(D)	-	1.2	-	1.1	-	-	(Z)	-.3
1021	Copper ores:													
	Establishments.....number..	2	1	-	-	-	-	1	-	1	-	-	-	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	31	26	7	7	-	-	19	-	19	-	-	-	5
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	(D)
1081	Metal mining services:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining..mil.dol..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	5	5	1	1	-	-	2	-	2	-	1	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	(D)	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	5	5	1	1	-	-	2	-	2	-	1	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	(D)	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	74	52	5	-	-	5	-	-	-	-	-	47	22
	Employees.....1,000..	1.9	1.4	(D)	-	-	(D)	-	-	-	-	-	(D)	.2
	Value added in mining..mil.dol..	217.2	224.7	(D)	-	-	(D)	-	-	-	-	-	(D)	-7.7
131	Crude petroleum and natural gas:													
	Establishments.....number..	28	6	5	-	-	5	-	-	-	-	-	1	22
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	.2
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-7.7
138	Oil and gas field services:													
	Establishments.....number..	46	46	-	-	-	-	-	-	-	-	-	46	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	7	7	-	-	-	-	2	-	2	-	-	5	-
	Employees.....1,000..	.1	.1	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	2.1	2.1	-	-	-	-	(D)	-	(D)	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	6	6	-	-	-	-	1	-	1	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	126	138	Cost of supplies, total.....million dollars..	165.4	43.8
With 0 to 19 employees.....do....	91	120	Supplies used, minerals received for preparation, and purchased machinery.....do....	76.5	(NA)
With 20 to 99 employees.....do....	30	16	Cost of resales.....do....	.1	(NA)
With 100 or more employees.....do....	5	2	Purchased fuels consumed.....do....	5.0	(NA)
All employees (average for year).....1,000..	2.2	1.3	Electric energy:		
Payroll (all employees), total for year.....million dollars..	28.5	12.1	Quantity purchased.....million kw.-hrs..	16.7	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	.3	(NA)
Average for the year.....1,000..	1.8	1.1	Generated less sold.....million kw.-hrs..	134.9	(NA)
March.....do....	1.5	(NA)	Contract work.....million dollars..	83.5	30.1
May.....do....	1.8	(NA)	Value of shipments and receipts (including resales), total.....do....	187.6	62.4
August.....do....	2.1	(NA)	Value of resales.....do....	.3	(NA)
November.....do....	1.8	(NA)	Value added in mining.....do....	223.5	52.6
Man-hours.....millions..	4.5	2.4	Capital expenditures (except land and mineral rights), total.....do....	201.3	33.9
Wages.....million dollars..	22.3	9.7	Mineral development and exploration.....do....	110.2	29.3
Supplemental labor cost not included in payroll.....do..	3.4	(NA)	New structures and additions.....do....	48.1	4.6
			New machinery and equipment.....do....	42.4	
			Used plant and equipment.....do....	.6	
Legally required expenditures, including Social Security contributions.....do..	2.2	(NA)	Mineral development and exploration expenditures, total.....do....	128.2	(NA)
Payments for voluntary programs.....do..	1.2	(NA)	Capitalized.....do....	110.2	29.3
			Expensed.....do....	18.0	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Alaska, total[2]	126	35	2.2	28.5	1.8	4.5	22.3	223.5	165.4	187.6	201.3	1.3	52.6
	COUNTIES													
	Aleutian Island division, total[2]	67	17	.9	9.6	.6	1.4	6.3	86.9	42.6	67.3	62.2	(D)	(D)
10	Metal mining	18	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	43	14	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	18	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	25	10	.4	3.9	.4	.9	3.4	11.9	4.4	13.8	2.5	(D)	(D)
	Kenai Peninsula Borough N.W.	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Offshore	25	13	1.0	16.8	.9	2.6	14.5	132.4	120.3	114.3	138.3	.1	4.7
13	Oil and gas extraction	25	13	1.0	16.8	.9	2.6	14.5	132.4	120.3	114.3	132.9	.1	4.7
131	Crude petroleum and natural gas	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	16	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Alaska, total	126	40	-	5	74	7
1 to 4 employees	65	29	-	3	29	4
5 to 9 employees	12	4	-	-	7	1
10 to 19 employees	14	4	-	-	9	1
20 to 49 employees	25	3	-	1	20	1
50 to 99 employees	5	-	-	1	4	-
100 to 249 employees	5	-	-	-	5	-
Aleutian Island division, total	67	18	1	2	43	3
1 to 19 employees	50	16	1	1	29	3
20 to 99 employees	17	2	-	1	14	-
Bethel division, total	1	-	-	1	-	-
20 to 99 employees	1	-	-	1	-	-
Gateway Borough, total	1	1	-	-	-	-
1 to 19 employees	1	1	-	-	-	-
Greater Anchorage Borough, total	7	3	-	-	3	1
1 to 19 employees	6	3	-	-	2	1
20 to 99 employees	1	-	-	-	1	-
Greater Sika Borough, total	1	-	-	-	-	1
1 to 19 employees	1	-	-	-	-	1
Kenai Peninsula Borough N.W.	4	-	-	-	3	1
1 to 19 employees	2	-	-	-	2	-
20 to 99 employees	2	-	-	-	1	1
Kobuk division, total	2	2	-	-	-	-
1 to 19 employees	2	2	-	-	-	-
Kuskokwim division, total	1	1	-	-	-	-
1 to 19 employees	1	1	-	-	-	-
North Star Borough, total	8	7	1	-	-	-
1 to 19 employees	8	7	1	-	-	-
Outer Ketchikan division, total	1	1	-	-	-	-
1 to 19 employees	1	1	-	-	-	-
Southeast Fairbanks div., total	1	1	-	-	-	-
1 to 19 employees	1	1	-	-	-	-
Valdez-Chitina-Whittier div., total	1	1	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
Wrangell-Petersburg div., total	1	-	-	-	-	1
1 to 19 employees	1	-	-	-	-	1
Yukon-Koyukuk division, total	3	3	-	-	-	-
1 to 19 employees	3	3	-	-	-	-
Offshore, total	25	-	-	-	25	-
1 to 19 employees	12	-	-	-	12	-
20 to 99 employees	8	-	-	-	8	-
100 to 249 employees	5	-	-	-	5	-

Standard Notes: - Represents zero.

[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

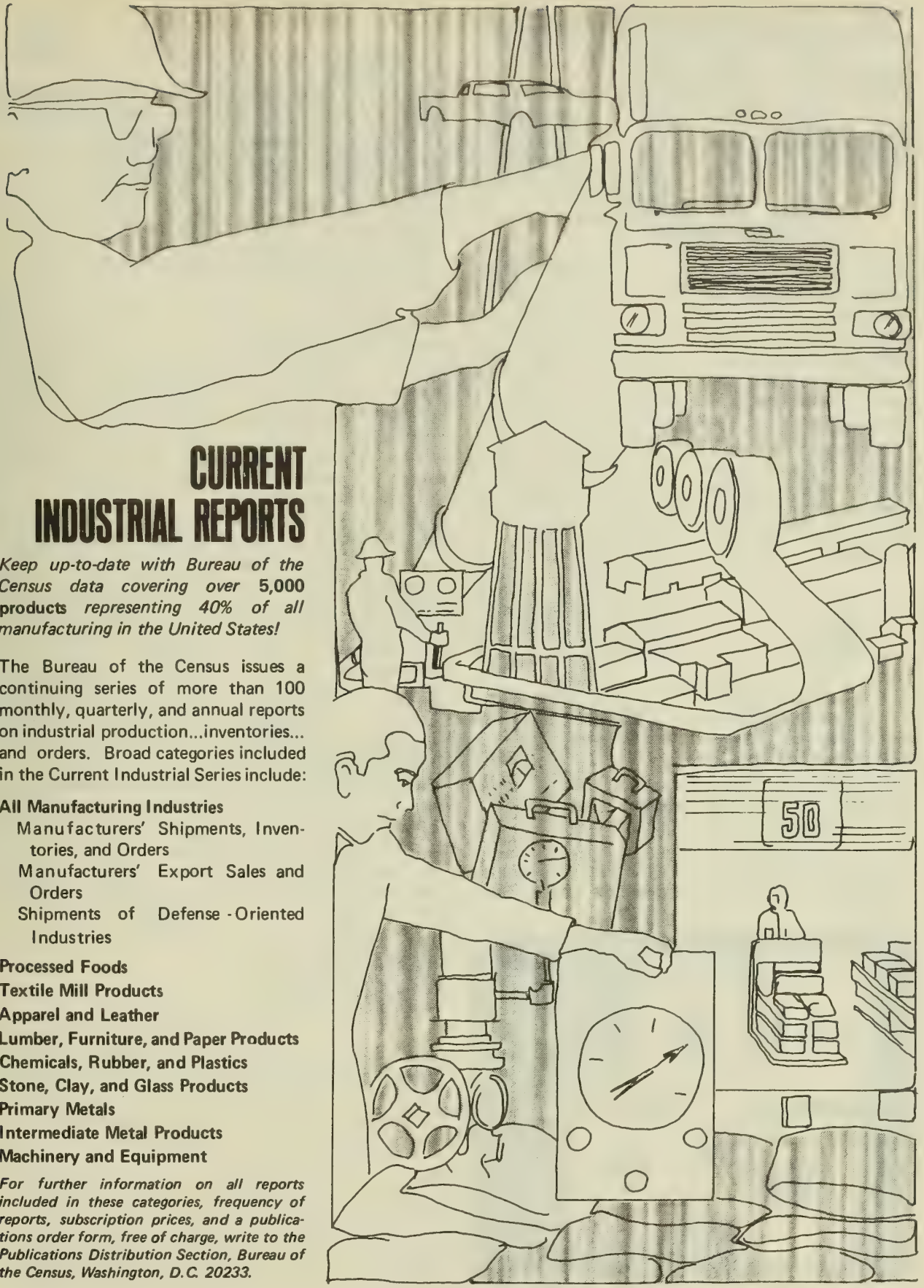
For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

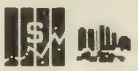
U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

CURRENT POPULATION REPORTS From the Bureau of the Census

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.



P-20 POPULATION CHARACTERISTICS. Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.



P-23 SPECIAL STUDIES. Infrequent reports on methods, concepts, or specialized data.

P-25 POPULATION ESTIMATES AND PROJECTIONS. Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES. Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.



P-27 FARM POPULATION. (Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES. Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

P-60 CONSUMER INCOME. Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

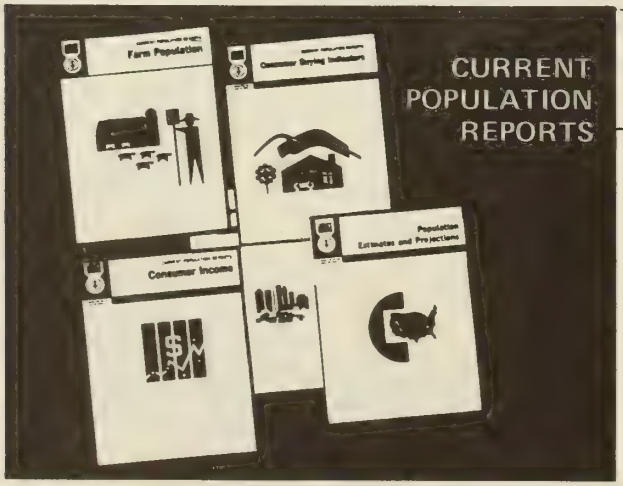


P-65 CONSUMER BUYING INDICATORS. Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.



Mail order form with payment to:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C., 20402
or any U.S. Dept. of Commerce Field Office

Please send_____subscription(s) of the **Current Population Report** Series as described above, at $14.00 per subscription. (8 Series). Add $3.50 for foreign mailing. C3.186: (Nos.)

Enclosed is $_____(check, money order, Supt. Docs. coupons) or charge Deposit Account No. _____

Name_____

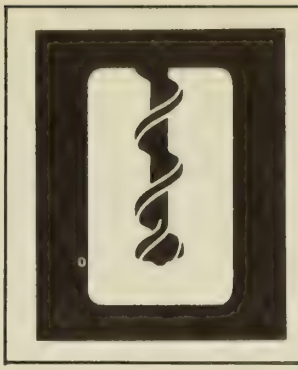
Street Address_____

City, State, ZIP_____

Make check or money order payable to Superintendent of Documents _____

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-868

1967 CENSUS OF Mineral Industries



MIC67(2)-3

AREA STATISTICS

ARIZONA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	9
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

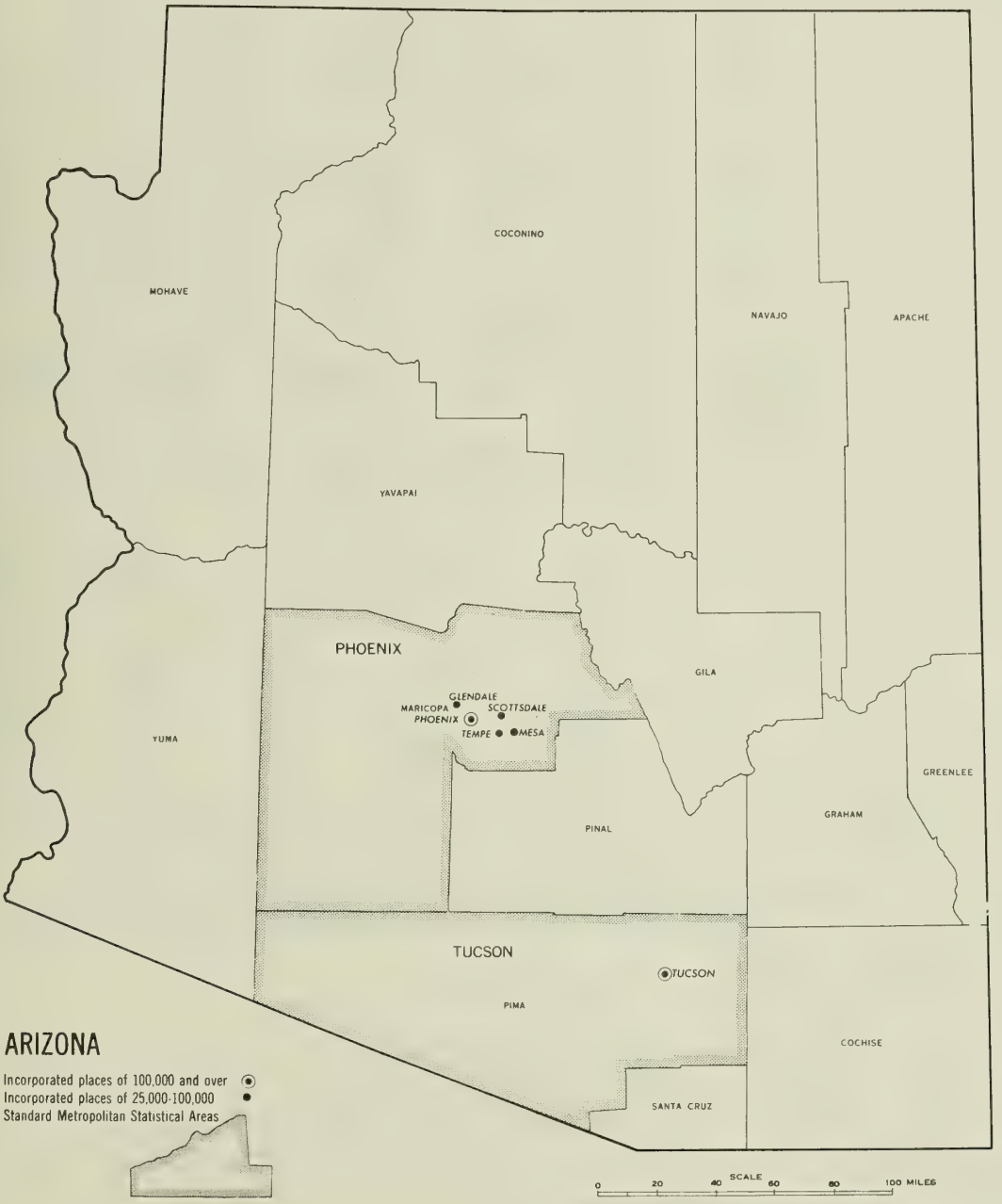
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]198	38	10.7	90.0	8.1	18.7	64.7	296.7
1963	[1]260	39	15.2	107.4	12.8	28.7	88.8	287.4
1958	320	40	15.3	79.9	12.1	24.5	61.7	189.0
1954	525	36	13.2	66.6	11.0	25.2	53.9	[2]178.1
Including operations in manufactures:								
1967	224	40	11.0	91.6	8.4	19.3	66.3	303.0
1963	290	41	15.5	109.0	13.1	29.4	90.4	295.7
1958	338	43	15.6	81.5	12.5	25.2	63.3	195.5
1954[3]	533	37	13.3	66.8	11.0	25.3	54.1	[2]179.0
1939[4]	[5]179	(NA)	10.4	17.1	9.4	22.1	14.6	40.6
1929[6]	236	(NA)	18.9	33.5	17.3	(NA)	29.2	91.5
1919[7]	250	(NA)	17.7	30.5	16.1	(NA)	27.4	64.6
1909[7]	445	(NA)	16.0	17.4	15.1	(NA)	16.0	19.5
1902[7]	[5]494	(NA)	8.4	8.6	[8]7.6	(NA)	7.4	6.9

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]127.6	([10])	6.0	([10])	369.6	60.8	(NA)
1963	84.6	25.6	17.9	13.1	385.9	42.6	3.9
1958	58.0	8.0	18.4	6.0	249.4	29.9	4.6
1954	48.5	1.1	30.4	9.2	[2]217.9	47.9	3.7
Including operations in manufactures:							
1967	[11]135.9	([11])	([11])	([11])	378.3	(NA)	(NA)
1963	[12]85.9	25.6	[12]17.9	[13]13.1	395.6	[13]42.6	[13]3.9
1958	[12]59.2	8.0	[12]18.4	[13]6.0	257.2	[13]29.9	[13]4.6
1954[3]	[12]48.8	1.1	[12]30.4	[13]9.2	[2]219.0	[13]47.9	[13]3.7
1939[4]	13.5	(NA)	.1	(NA)	54.2	(NA)	2.4
1929[6]	23.7	(NA)	1.3	7.4	116.5	(NA)	3.7
1919[7]	21.4	1.5	1.0	(NA)	88.5	(NA)	[14]2.9
1909[7]	12.9	1.4	.4	(NA)	34.2	(NA)	(NA)
1902[7]	4.0	(NA)	.4	(NA)	11.2	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 65 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operation in manufacturing establishments.

[4]Excludes data for dimension stone dressing plants, if any, operated in conjunction with 3 dimension stone quarries.

[5]Represents number of mines and quarries.

[6]Excludes data for establishments in the Oil and Gas Extraction Industries, if any.

[7]Excludes data for sand and gravel mining establishments and, except for 1902, for stone quarries operated as parts of cement and lime plants. In 1929, there were 3 such sand and gravel establishments with products valued at $82 thousand, and 2 such stone quarries.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, the figures represent net production and exclude this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for stone, sand and gravel, and clay mining operations in manufacturing establishments.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 4 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	198	38	10.7	90.0	8.1	18.7	64.7	296.7	133.6	369.6	60.8	15.2	287.4
10	Metal mining	92	32	9.9	85.4	7.4	17.4	61.0	278.8	126.5	349.1	56.2	14.2	277.1
1021	Copper ores	51	24	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	12.5	257.8
103	Lead and zinc ores	10	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	(D)
1032	Lead ores	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	3	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	13	3	.2	1.6	.2	.5	1.5	2.6	2.2	4.5	.3	1.0	12.2
109	Miscellaneous metal ores	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1094	Uranium-radium-vanadium ores	3	2	.1	.3	(Z)	.1	.2	.7	.3	.9	.1	(D)	(D)
12	Bituminous coal and lignite mining	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1213	Bituminous and lignite mining services, n.e.c.	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	43	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.4
138	Oil and gas field services	20	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	61	4	.6	3.3	.5	.9	2.7	6.6	2.7	8.4	.9	.9	9.8
142	Crushed and broken stone	13	1	.1	.5	.1	.1	.5	1.2	.4	1.5	.1	.1	1.4
1429	Crushed and broken stone, n.e.c.	8	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.1
144	Sand and gravel	28	2	.3	2.1	.3	.6	1.8	4.1	1.7	5.2	.6	.6	6.2
1442	Construction sand and gravel	25	2	.3	1.9	.3	.5	1.6	3.5	1.3	4.3	.5	(D)	(D)
149	Miscellaneous nonmetallic minerals	13	1	.1	.4	.1	.1	.4	1.0	.3	1.3	.1	.2	1.8
1499	Nonmetallic minerals, n.e.c.	6	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	26	2	0.3	1.6	0.3	0.6	1.6	6.3	2.3	8.7	(NA)	0.3	8.4
142	Crushed and broken stone (limestone)	8	-	0.1	0.4	0.1	0.2	0.4	1.4	0.7	2.1	(NA)	(NA)	(NA)
144	Sand and gravel	15	2	0.2	1.1	0.2	0.4	1.1	4.7	1.6	6.3	(NA)	0.2	5.7

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Arizona:													
	Establishments.....number..	198	179	58	17	34	7	56	10	40	6	2	63	19
	Employees.....1,000..	10.7	10.6	1.2	.6	.5	(Z)	8.4	2.3	6.0	.1	(D)	(D)	.1
	Value added in mining..mil.dol..	296.7	298.0	43.2	9.2	24.7	9.3	244.5	31.7	211.1	1.7	(D)	(D)	-
10	Metal mining:													
	Establishments.....number..	92	82	42	16	26	-	19	6	13	-	1	20	10
	Employees.....1,000..	9.9	9.8	1.1	(D)	(D)	-	8.0	2.3	5.7	-	(D)	(D)	.1
	Value added in mining..mil.dol..	278.8	279.8	33.2	(D)	(D)	-	238.8	31.1	207.7	-	(D)	(D)	-
1011	Iron ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
1021	Copper ores:													
	Establishments.....number..	51	43	21	1	20	-	15	2	13	-	1	6	8
	Employees.....1,000..	(D)	(D)	1.0	(D)	(D)	-	(D)	(D)	5.7	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	32.3	(D)	(D)	-	(D)	(D)	207.7	-	(D)	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	10	10	7	7	-	-	3	3	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	.1	.1	-	-	(D)	(D)	-	-	-	-	-
104	Gold and silver ores:													
	Establishments.....number..	8	7	7	6	1	-	-	-	-	-	-	-	1
	Employees.....1,000..	(Z)	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(Z)	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	4	4	4	-	4	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	13	13	-	-	-	-	-	-	-	-	-	13	-
	Employees.....1,000..	.2	.2	-	-	-	-	-	-	-	-	-	.2	-
	Value added in mining..mil.dol..	2.6	2.6	-	-	-	-	-	-	-	-	-	2.6	-
109	Miscellaneous metal ores:													
	Establishments.....number..	5	5	3	2	1	-	1	1	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	2	2	1	1	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	2	2	1	1	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	43	35	7	-	-	7	-	-	-	-	-	28	8
	Employees.....1,000..	(D)	(D)	(Z)	-	-	(Z)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	9.3	-	-	9.3	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	23	15	7	-	-	7	-	-	-	-	-	8	8
	Employees.....1,000..	(D)	(D)	(Z)	-	-	(Z)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	9.3	-	-	9.3	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	20	20	-	-	-	-	-	-	-	-	-	20	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Arizona--Continued													
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	61	60	8	-	8	-	37	4	27	6	1	14	1
	Employees.....1,000..	.6	(D)	(D)	-	(D)	-	.5	.1	.3	.1	(D)	(Z)	(D)
	Value added in mining..mil.dol..	6.6	(D)	(D)	-	(D)	-	5.7	.6	3.4	1.7	(D)	.3	(D)
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	13	13	1	-	1	-	12	1	11	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining..mil.dol..	1.2	1.2	(D)	-	(D)	-	(D)	(D)	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	28	28	1	-	1	-	16	-	10	6	-	11	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	.3	-	.2	.1	-	(D)	-
	Value added in mining..mil.dol..	4.1	4.1	(D)	-	(D)	-	3.8	-	2.1	1.7	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number	3	2	-	-	-	-	1	1	-	-	1	-	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	(D)	-	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	13	13	4	-	4	-	8	2	6	-	-	1	-
	Employees.....1,000..	.1	.1	(Z)	-	(Z)	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	1.0	1.0	.1	-	.1	-	(D)	(D)	(D)	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	198	260	Cost of supplies, total.....million dollars..	133.6	141.2
With 0 to 19 employees.....do....	160	221	Supplies used, minerals received for preparation, and purchased machinery.....do....	110.2	(NA)
With 20 to 99 employees.....do....	16	17	Cost of resales.....do....	.1	(NA)
With 100 or more employees.....do....	22	22	Purchased fuels consumed.....do....	4.6	(NA)
All employees (average for year).....1,000..	10.7	15.2	Electric energy:		
Payroll (all employees), total for year.....million dollars..	90.0	107.4	Quantity purchased.....million kw.-hrs..	1,335.4	(NA)
			Cost.....million dollars..	12.8	(NA)
			Generated less sold.....million kw.-hrs..	227.4	(NA)
			Contract work.....million dollars..	6.0	17.9
Production, development, and exploration workers:					
Average for the year.....1,000..	8.1	12.8	Value of shipments and receipts (including resales), total.....do....	369.6	385.9
March.....do....	12.4	(NA)	Value of resales.....do....	.1	(NA)
May.....do....	12.5	(NA)			
August.....do....	3.9	(NA)	Value added in mining.....do....	296.7	287.4
November.....do....	3.7	(NA)			
Man-hours.....millions..	18.7	28.7	Capital expenditures (except land and mineral rights), total.....do....	60.8	42.6
Wages.....million dollars..	64.7	88.8	Mineral development and exploration.....do....	15.0	20.3
			New structures and additions.....do....	10.4	22.3
Supplemental labor cost not included in payroll.....do..	14.4	(NA)	New machinery and equipment.....do....	32.7	
			Used plant and equipment.....do....	2.7	
			Mineral development and exploration expenditures, total.....do....	18.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	6.3	(NA)	Capitalized.....do....	15.0	20.3
Payments for voluntary programs.....do..	8.2	(NA)	Expensed.....do....	3.8	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Arizona, total	198	38	10.7	90.0	8.1	18.7	64.7	296.7	133.6	369.6	60.8	15.2	287.4
	COUNTIES[2]													
	Cochise county, total	15	5	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	9	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	7	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gila county, total	12	6	1.6	10.8	1.2	2.6	7.5	25.7	31.9	48.7	9.0	2.1	37.4
10	Metal mining	8	5	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	6	5	1.5	10.5	1.1	2.5	7.3	25.2	31.7	47.9	8.9	2.1	37.0
	Greenlee county, total	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Maricopa county, total	35	3	.4	2.2	.3	.6	1.6	2.7	1.5	3.7	.5	.5	4.9
14	Nonmetallic minerals, except fuels	15	2	.3	1.7	.2	.5	1.4	2.7	1.3	3.5	.4	.4	4.7
144	Sand and gravel	9	2	.3	1.5	.2	.4	1.3	2.4	1.1	3.1	.4	.4	4.3
	Mohave county, total	10	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.8
10	Metal mining	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Pima county, total	57	12	2.9	23.5	2.2	5.1	17.7	99.5	43.1	122.1	20.5	3.2	88.5
10	Metal mining	34	11	2.7	22.7	2.1	4.9	17.0	97.5	42.4	119.7	20.2	(D)	(D)
102	Copper ores	18	8	2.5	21.1	1.9	4.5	15.5	95.7	40.5	116.4	19.9	(D)	(D)
108	Metal mining services	7	2	.2	1.0	.2	.3	1.0	1.4	1.4	2.6	.2	(D)	(D)
	Pinal county, total	23	4	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	12	3	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	6	3	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Yavapai county, total	15	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	12.5
10	Metal mining	9	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	12.4
102	Copper ores	6	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Arizona, total	198	92	-	2	43	61
0 to 4 employees	109	45	-	1	35	28
5 to 9 employees	32	8	-	-	5	19
10 to 19 employees	19	7	-	-	2	10
20 to 49 employees	15	11	-	-	1	3
50 to 99 employees	2	2	-	-	-	-
100 to 249 employees	5	3	-	1	-	1
250 to 499 employees	8	8	-	-	-	-
500 to 999 employees	7	7	-	-	-	-
1,000 to 1,499 employees	1	1	-	-	-	-
Apache county, total	22	1	-	-	19	2
0 to 19 employees	21	1	-	-	18	2
20 to 99 employees	1	-	-	-	1	-
Cochise county, total	15	9	-	1	2	3
0 to 19 employees	10	5	-	1	2	2
20 to 99 employees	2	1	-	-	-	1
100 to 249 employees	1	1	-	-	-	-
250 employees and over	2	2	-	-	-	-
Coconino county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Gila county, total	12	8	-	1	-	3
0 to 19 employees	6	3	-	1	-	2
20 to 99 employees	2	1	-	-	-	1
100 to 249 employees	1	1	-	-	-	-
250 employees and over	3	3	-	-	-	-
Graham county, total	2	1	-	1	-	-
0 to 19 employees	2	1	-	1	-	-
Greenlee county, total	2	2	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Maricopa county, total	35	8	-	2	10	15
0 to 19 employees	32	7	-	2	10	13
20 to 99 employees	2	1	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Mohave county, total	10	5	-	-	-	5
0 to 19 employees	8	3	-	-	-	5
20 to 99 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Navajo county, total	7	2	-	-	4	1
0 to 19 employees	7	2	-	-	4	1
Pima county, total	57	34	-	1	6	16
0 to 19 employees	45	23	-	-	6	16
20 to 99 employees	6	5	-	1	-	-
100 to 249 employees	1	1	-	-	-	-
250 employees and over	5	5	-	-	-	-
Pinal county, total	23	12	-	1	3	7
0 to 19 employees	19	9	-	-	3	7
20 to 99 employees	1	-	-	1	-	-
250 employees and over	3	3	-	-	-	-
Santa Cruz county, total	5	3	-	1	-	1
0 to 19 employees	4	2	-	1	-	1
20 to 99 employees	1	1	-	-	-	-
Yavapai county, total	15	9	-	1	1	4
1 to 19 employees	11	5	-	1	1	4
20 to 99 employees	2	2	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Yuma county, total	5	3	-	-	-	2
1 to 19 employees	5	3	-	-	-	2

Standard Notes: -Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

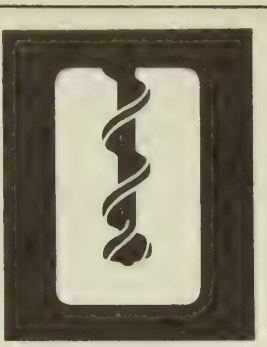
In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-867

1967 CENSUS OF Mineral Industries



MIC67(2)-4

AREA STATISTICS

ARKANSAS

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	9
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.


BENTON
CARROLL
BOONE
MARION
BAXTER
FULTON
RANDOLPH
CLAY
GREENE
IZARD
SHARP
LAWRENCE
FAYETTEVILLE
WASHINGTON
MADISON
NEWTON
SEARCY
STONE
INDEPENDENCE
CRAIGHEAD
BLYTHEVILLE
MISSISSIPPI
POINSETT
JACKSON
CLEBURNE
VAN BUREN
FORT SMITH
SEQUOYAH
CRAWFORD
FRANKLIN
JOHNSON
POPE
FORT SMITH
CONWAY
WHITE
CROSS
CRITTENDEN
SHELBY
MEMPHIS
MEMPHIS, TENN
WOODRUFF
SEBASTIAN
LOGAN
FAULKNER
ST FRANCIS
LE FLORE
YELL
PERRY
SCOTT
PULASKI
NORTH LITTLE ROCK
LITTLE ROCK
LONOKE
LITTLE ROCK-NORTH LITTLE ROCK
PRAIRIE
LEE
SALINE
MONROE
POLK
MONTGOMERY
GARLAND
HOT SPRINGS
PHILLIPS
PINE BLUFF
HOT SPRING
GRANT
JEFFERSON
PINE BLUFF
ARKANSAS
PIKE
HOWARD
SEVIER
CLARK
DALLAS
CLEVELAND
LINCOLN
DESHA
HEMPSTEAD
LITTLE RIVER
NEVADA
OUACHITA
CALHOUN
BRADLEY
DREW
TEXARKANA
BOWIE
TEXARKANA, TEX.
MILLER
LAFAYETTE
COLUMBIA
EL DORADO
UNION
ASHLEY
CHICOT
ARKANSAS
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
SCALE
0 10 20 30 40 50 MILES
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers.			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] 306	56	4.1	24.7	3.4	7.0	19.2	129.7
1963	[1] 422	60	4.7	23.6	4.0	8.1	18.7	110.2
1958	443	61	5.3	23.4	4.1	7.9	16.4	110.5
1954	410	67	5.9	22.5	5.0	10.0	17.5	[2] 107.9
Including operations in manufactures:								
1967	319	57	4.2	25.2	3.5	7.2	19.7	134.0
1963	452	62	4.9	24.4	4.2	8.5	19.6	113.9
1958	463	66	5.6	24.6	4.4	8.5	17.5	114.5
1954	423	72	6.1	23.0	5.2	10.4	18.0	[2] 110.1
1939 [3]	[4] 307	(NA)	7.5	8.7	6.9	10.7	7.4	22.2
1919	126	(NA)	4.0	5.2	3.6	(NA)	4.8	6.4
1909	121	(NA)	5.2	3.3	4.9	(NA)	3.0	4.0
1902 [5]	[4] 126	(NA)	3.2	2.1	[6] 2.9	(NA)	1.9	2.6
Excluding oil and gas extraction industries:								
1967	113	33	2.7	15.9	2.3	4.6	12.7	54.2
1963	167	32	.8	13.2	2.3	4.9	11.0	46.0
1958	169	34	2.8	11.2	2.4	4.6	8.7	34.1
1954 [7]	155	37	3.4	12.0	3.0	6.2	10.2	[2] 40.0
1939	[4] 143	(NA)	4.3	3.7	4.0	5.5	3.1	5.8
1929 [8]	128	(NA)	5.4	5.7	5.0	(NA)	4.9	9.6
1919 [9]	119	(NA)	3.9	5.1	3.6	(NA)	4.5	6.1
1909 [9]	117	(NA)	5.2	3.3	4.9	(NA)	3.6	4.0

Kind of operation and year	Selected expenses				Value of shipments and receipts [10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11] 44.6	([11])	23.1	([11])	165.0	32.4	(NA)
1963	26.7	14.6	13.4	7.9	155.5	17.3	4.2
1958	[13] 19.9	[13] 3.5	11.1	7.8	136.5	16.3	3.8
1954	20.0	[14] 2.1	12.9	7.1	136.2	13.7	3.8
Including operations in manufactures:							
1967	[12] 68.3	([12])	([12])	([12])	169.9	(NA)	(NA)
1963	[15] 27.7	14.6	[15] 13.4	7.9	160.2	[16] 17.3	[16] 4.2
1958	[13] [15] 20.5	[13] 3.5	[15] 11.1	[16] 7.8	141.1	[16] 16.7	[16] 3.8
1954	[15] 20.4	[14] 2.1	[15] 12.9	[16] 7.1	138.9	[16] 13.7	[16] 3.8
1939 [3]	4.0	(NA)	5.2	(NA)	31.3	(NA)	3.3
1919	1.7	[17] .2	.1	(NA)	8.4	(NA)	[18] .7
1909	.5	-	.1	(NA)	4.6	(NA)	(NA)
1902 [5]	.2	(NA)	(Z)	(NA)	2.8	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[12] 38.4	([12])	([12])	([12])	75.6	(NA)	(NA)
1963	[15] 14.5	1.2	[15] 2.7	[16] 2.7	63.6	[16] 3.5	[16] 1.3
1958	[13] [15] 7.8	([13])	15.5	[16] 3.0	42.5	[16] 3.0	[16] .4
1954 [7]	[15] 9.2	.9	[15] 2.3	[16] 2.6	52.7	[16] 2.3	[16] .6
1939	1.6	(NA)	.1	(NA)	7.4	(NA)	.4
1929 [8]	1.7	(NA)	.1	.6	11.4	(NA)	.5
1919 [9]	1.6	-	.1	(NA)	7.8	(NA)	[18] .7
1909 [9]	.5	-	(Z)	(NA)	4.5	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Arkansas--Continued

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 61 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Includes data for one or two establishments primarily engaged in oil and gas field hauling. Such operations were not classified in the mineral industries for 1954 and 1958.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand, gravel, common clay, and shale operations. Includes data for lime plants producing lime valued at $83 thousand. No oil extraction operations were reported for 1902, hence, these figures are also comparable with those shown for later years for "Excluding oil and gas extraction industries."

[6]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]Excludes data for sand and gravel mining operations in manufacturing establishments.

[8]Excludes data for common clay and shale operations. In 1939, there were 10 such clay and shale mines, with products valued at $80 thousand.

[9]Excludes data for sand and gravel operations, and stone quarries operated as parts of cement and lime plants. In 1929, there were 16 such sand and gravel establishments, with products valued at $1,572 thousand, and 3 such stone quarries at lime plants. See also footnotes 9. For 1919, also excludes data for 2 nonproducing establishments. For "Excluding oil and gas extraction industries" in 1909, except for number of establishments includes data for one nonproducing establishment in these industries.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishments in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplicaton. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For Metal Mining Industries, the cost of minerals received for preparation is included with the cost of supplies, purchases for resale and purchased fuels and electric energy.

[14]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[15]For crushed and broken stone, sand and gravel, and clay mining operations manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[16]Excludes data for crushed and broken stone, sand and gravel and clay mining operations in manufacturing establishments and for 1963, excludes data for dimension stone mining in manufacturing establishments.

[17]Represents cost of gas purchased for resale.

[18]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 3 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations	306	56	4.1	24.7	3.4	7.0	19.2	129.7	67.7	165.0	32.4	4.7	110.2
10	Metal mining	13	5	.7	4.7	.5	.9	3.2	21.0	(D)	26.6	(D)	.5	(D)
1051	Bauxite and other aluminum ores	9	4	.5	3.6	.4	.7	2.5	21.2	5.3	26.4	.1	.5	16.7
109	Miscellaneous metal ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1094	Uranium-radium-vanadium ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	12	2	.1	.6	.1	.2	.6	1.4	(D)	1.7	(D)	.1	(Z)
121	Bituminous coal and lignite mining	12	2	.1	.6	.1	.2	.6	1.4	(D)	1.7	(D)	.1	1.3
1211	Bituminous coal	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
13	Oil and gas extraction	206	24	1.5	9.3	1.2	2.6	7.0	79.8	29.9	94.3	15.5	2.2	67.9
131	Crude petroleum and natural gas	127	9	.7	4.7	.5	1.0	3.1	68.0	15.4	69.4	14.0	-	-
1312	Crude petroleum	107	8	.7	4.1	.5	.9	2.8	45.5	10.7	48.7	7.5	1.2	58.5
1313	Natural gas	20	1	.1	.6	.1	.1	.3	22.5	4.7	20.7	6.5	(D)	(D)
1321	Natural gas liquids	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.3
138	Oil and gas field services	75	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	7.1
1381	Drilling oil and gas wells	26	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	4.6
1389	Oil and gas field services, n.e.c.	45	6	.3	1.9	.3	.6	1.5	4.9	1.5	5.8	.6	.4	2.4
14	Nonmetallic minerals, except fuels	75	25	1.8	10.2	1.6	3.4	8.5	27.5	(D)	42.5	(D)	1.8	23.8
142	Crushed and broken stone	24	13	.9	5.6	.8	1.7	4.7	15.3	(D)	26.0	(D)	(D)	(D)
1422	Crushed and broken limestone	15	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1423	Crushed and broken granite	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	7	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	38	10	.5	2.8	.5	1.1	2.4	7.5	(D)	10.4	(D)	(D)	(D)
1442	Construction sand and gravel	36	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1472	Barite	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number [1] (1,000)	Payroll [1] (million dollars)	Number [1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	13	1	0.1	0.5	0.1	0.2	0.5	4.3	0.6	4.9	(NA)	0.2	3.7
142	Crushed and broken stone (limestone)	3	1	0.1	0.2	0.1	0.1	0.2	3.1	0.2	3.3	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Arkansas:													
	Establishments.....number..	306	297	98	7	12	79	58	3	47	8	6	135	9
	Employees.....1,000..	4.1	4.0	1.1	(D)	.2	(D)	1.8	(D)	1.4	(D)	.1	.9	.1
	Value added in mining.mil. dol..	129.7	130.0	86.2	(D)	11.7	(D)	27.6	(D)	21.2	(D)	2.7	13.6	-.3
10	Metal mining:													
	Establishments.....number..	13	12	7	-	6	1	1	-	1	-	2	2	1
	Employees.....1,000..	.7	(D)	.4	-	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)
	Value added in mining.mil. dol..	21.0	(D)	20.3	-	(D)	(D)	(D)	-	(D)	-	(D)	(D)	(D)
1051	Bauxite and other aluminum ores:													
	Establishments.....number..	9	9	5	-	4	1	1	-	1	-	2	1	-
	Employees.....1,000..	.5	.5	(D)	-	.1	(D)	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining.mil. dol..	21.2	21.2	(D)	-	11.4	(D)	(D)	-	(D)	-	(D)	(D)	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.mil. dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	12	12	8	7	1	-	3	1	2	-	-	1	-
	Employees.....1,000..	.1	.1	(Z)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining.mil. dol..	1.4	1.4	.4	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	12	12	8	7	1	-	3	1	2	-	-	1	-
	Employees.....1,000..	.1	.1	(Z)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining.mil. dol..	1.4	1.4	.4	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	206	198	78	-	-	78	-	-	-	-	4	116	8
	Employees.....1,000..	1.5	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
	Value added in mining.mil. dol..	79.8	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	127	119	78	-	-	78	-	-	-	-	-	41	8
	Employees.....1,000..	.7	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.mil. dol..	68.0	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	4	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining.mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	75	75	-	-	-	-	-	-	-	-	-	75	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	75	75	5	-	5	-	54	2	44	8	-	16	-
	Employees.....1,000..	1.8	1.8	(Z)	-	(Z)	-	(D)	(D)	(D)	(D)	-	(D)	-
	Value added in mining.mil. dol..	27.5	27.5	.2	-	.2	-	(D)	(D)	(D)	(D)	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	24	24	-	-	-	-	24	1	23	-	-	-	-
	Employees.....1,000..	.9	.9	-	-	-	-	.9	(D)	(D)	-	-	-	-
	Value added in mining.mil. dol..	15.3	15.3	-	-	-	-	15.3	(D)	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Arkansas--Continued													
14	Nonmetallic minerals, except fuels--Continued													
144	Sand and gravel:													
	Establishments.....number..	38	38	1	-	1	-	22	-	15	7	-	15	-
	Employees.....1,000..	.5	.5	(D)	-	(D)	-	.5	-	(D)	(D)	-	(D)	-
	Value added in mining mil. dol..	7.5	7.5	(D)	-	(D)	-	6.7	-	(D)	(D)	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	1	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	(D)	-	-	-
	Value added in mining.mil. dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	(D)	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	4	4	-	-	-	-	4	-	4	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	(Z)	-	(Z)	-	-	-	-
	Value added in mining.mil. dol..	.6	.6	-	-	-	-	.6	-	.6	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	306	422	Cost of supplies, total.....million dollars..	67.7	63.4
With 0 to 19 employees.....do....	250	362	Supplies used, minerals received for preparation, and purchased machinery.....do....	37.4	(NA)
With 20 to 99 employees.....do....	50	53	Cost of resales.....do....	2.0	(NA)
With 100 or more employees.....do....	6	7	Purchased fuels consumed.....do....	3.0	(NA)
All employees (average for year).....1,000..	4.1	4.7	Electric energy:		
			Quantity purchased.....million kw.-hrs..	158.9	(NA)
Payroll (all employees), total for year.....million dollars..	24.7	23.6	Cost.....million dollars..	2.2	(NA)
			Generated work .....million kw.-hrs..	.3	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	23.1	13.4
Average for the year.....1,000..	3.4	4.0	Value of shipments and receipts (including resales), total.....do....	165.0	155.5
March.....do....	3.3	(NA)	Value of resales.....do....	2.1	(NA)
May.....do....	3.4	(NA)			
August.....do....	3.4	(NA)	Value added in mining.....do....	129.7	110.2
November.....do....	3.4	(NA)			
Man-hours.....millions..	7.0	8.1	Capital expenditures (except land and mineral rights), total.....do....	32.4	17.3
Wages.....million dollars..	19.2	18.7	Mineral development and exploration.....do....	9.5	7.6
			New structures and additions.....do....	15.5	9.7
Supplemental labor cost not included in payroll.....do..	2.6	(NA)	New machinery and equipment.....do....	5.8	
			Used plant and equipment.....do....	1.5	
Legally required expenditures, including Social Security contributions.....do..	1.4	(NA)	Mineral development and exploration expenditures, total.....do....	13.1	(NA)
Payments for voluntary programs.....do..	1.2	(NA)	Capitalized.....do....	9.5	7.6
			Expensed.....do....	3.6	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Arkansas, total	306	56	4.1	24.7	3.4	7.0	19.2	129.7	67.7	165.0	32.4	4.7	110.2
	COUNTIES[2]													
	Columbia county, total	39	8	.3	2.3	.2	.5	1.6	18.5	10.0	27.8	.8	.5	12.7
13	Oil and gas extraction	39	8	.3	2.3	.2	.5	1.6	18.5	10.0	27.8	.8	(D)	(D)
131	Crude petroleum and natural gas	20	3	.1	1.1	.1	.2	.6	15.9	.9	16.4	.3	.2	10.6
138	Oil and gas field services	18	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Garland county, total	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hot Spring county, total	3	3	.3	1.7	.3	.5	1.3	4.1	1.4	5.3	.1	.3	3.8
14	Nonmetallic minerals, except fuels	3	3	.3	1.7	.3	.5	1.3	4.1	1.4	5.3	.1	(D)	(D)
147	Chemical and fertilizer minerals	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Izard county, total	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lafayette county, total	26	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	10.7
	Ouachita county, total	35	2	.2	1.0	.1	.2	.7	5.5	1.7	6.7	.5	.2	7.5
13	Oil and gas extraction	33	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.5
131	Crude petroleum and natural gas	24	2	.1	.8	.1	.2	.5	5.1	1.5	6.2	.4	.2	7.2
	Pulaski county, total	12	6	.7	4.1	.5	1.1	3.4	12.0	10.1	21.8	.3	(D)	(D)
14	Nonmetallic minerals, except fuels	8	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	5	4	.6	3.7	.5	1.0	3.0	10.3	9.0	19.1	.3	(D)	(D)
	Saline county, total	10	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	16.8
10	Metal mining	7	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
105	Bauxite and other aluminum ores	6	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Sebastian county, total	35	3	.2	1.1	.1	.3	.7	4.7	1.5	4.8	1.4	.1	1.4
13	Oil and gas extraction	29	3	.1	1.0	.1	.3	.6	4.5	1.4	4.5	1.4	.1	1.2
138	Oil and gas field services	14	2	.1	.8	.1	.3	.6	1.5	.6	1.9	.2	.1	.5
	Union county, total	112	8	.6	3.2	.5	.9	2.5	10.2	3.7	12.0	2.0	.7	13.7
13	Oil and gas extraction	111	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	74	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	11.2
138	Oil and gas field services	36	4	.3	1.3	.3	.5	1.2	2.9	.8	3.3	.4	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Arkansas, total	306	13	-	12	206	75
0 to 4 employees	162	4	-	5	128	25
5 to 9 employees	43	2	-	2	29	10
10 to 19 employees	45	2	-	3	25	15
20 to 49 employees	42	2	-	2	21	17
50 to 99 employees	8	-	-	-	3	5
100 to 249 employees	4	2	-	-	-	2
250 to 499 employees	2	1	-	-	-	1
Arkansas county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Benton county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Bradley county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Calhoun county, total	5	-	-	-	2	3
0 to 19 employees	5	-	-	-	2	3
Chicot county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Clark county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Clay county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cleburne county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Columbia county, total	39	-	-	-	39	-
0 to 19 employees	31	-	-	-	31	-
20 to 99 employees	8	-	-	-	8	-
Conway county, total	8	-	-	-	7	1
0 to 19 employees	7	-	-	-	7	-
20 to 99 employees	1	-	-	-	-	1
Craighead county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Crawford county, total	20	-	-	-	18	2
0 to 19 employees	18	-	-	-	18	-
20 to 99 employees	2	-	-	-	-	2
Crittenden county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cross county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Franklin county, total	18	-	-	1	15	2
0 to 19 employees	17	-	-	-	15	2
20 to 99 employees	1	-	-	1	-	-
Garland county, total	4	1	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
100 to 249 employees	1	1	-	-	-	-
Grant county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Greene county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hempstead county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Hot Spring county, total	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Howard county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Independence county, total	6	2	-	-	-	4
0 to 19 employees	6	2	-	-	-	4

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Arkansas--Continued						
Izard county, total	5	-	-	-	-	5
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	3	-	-	-	-	3
Jackson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Jefferson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Johnson county, total	22	-	-	5	17	-
0 to 19 employees	21	-	-	4	17	-
20 to 99 employees	1	-	-	1	-	-
Lafayette county, total	26	-	-	-	25	1
0 to 19 employees	24	-	-	-	24	-
20 to 99 employees	2	-	-	-	1	1
Lawrence county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Lincoln county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Little River county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Logan county, total	20	-	-	1	16	3
0 to 19 employees	20	-	-	1	16	3
Miller county, total	18	-	-	-	17	1
0 to 19 employees	17	-	-	-	17	-
20 to 99 employees	1	-	-	-	-	1
Mississippi county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Montgomery county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Nevada county, total	13	-	-	-	13	-
0 to 19 employees	13	-	-	-	13	-
Newton county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Ouachita county, total	35	-	-	-	33	2
0 to 19 employees	33	-	-	-	31	2
20 to 99 employees	2	-	-	-	2	-
Perry county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Pike county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Poinsett county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Polk county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Pope county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Pulaski county, total	12	3	-	-	1	8
0 to 19 employees	6	1	-	-	1	4
20 to 99 employees	4	2	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Randolph county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
St. Francis county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)*	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Arkansas--Continued						
Saline county, total	10	7	-	-	-	3
0 to 19 employees	8	5	-	-	-	3
100 to 249 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Scott county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Searcy county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Sebastian county, total	35	-	-	4	29	2
0 to 19 employees	32	-	-	4	26	2
20 to 99 employees	3	-	-	-	3	-
Sharp county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Union county, total	112	-	-	1	111	-
0 to 19 employees	104	-	-	1	103	-
20 to 99 employees	8	-	-	-	8	-
Van Buren county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Washington county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
White county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
Yell county, total	5	-	-	-	4	1
0 to 19 employees	4	-	-	-	4	-
20 to 99 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

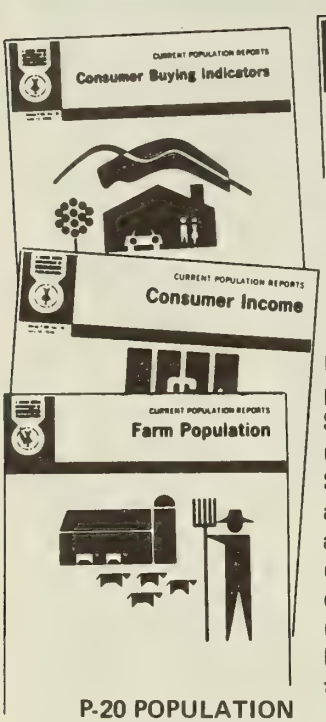
Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

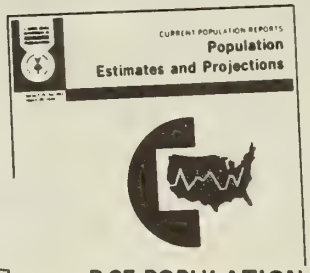
For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

CURRENT POPULATION REPORTS

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.





P-20 POPULATION CHARACTERISTICS.

Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.

P-23 SPECIAL STUDIES.

Infrequent reports on methods, concepts, or specialized data.

P-25 POPULATION ESTIMATES AND PROJECTIONS.

Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES.

Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.

P-27 FARM POPULATION.

(Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES.

Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

P-60 CONSUMER INCOME.

Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

P-65 CONSUMER BUYING INDICATORS.

Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

C3.186: (Nos.)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

From the Bureau of the Census

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-852

1967 CENSUS OF Mineral Industries



MIC67(2)-5

AREA STATISTICS

CALIFORNIA

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	8
5	General Statistics by County and Industry Groups: 1967 and 1963	9
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	12
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. Department of Commerce

Bureau of the Census

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,438	329	35.0	298.1	23.4	48.1	182.2	1,342.2
1963	[1]1,734	264	32.9	242.2	24.3	48.8	167.5	1,253.6
1958	1,658	266	33.8	211.8	23.5	48.1	130.0	1,225.5
1954	2,190	314	39.4	203.1	29.4	59.2	139.4	[2]1,315.2
Including operations in manufactures:								
1967	1,508	344	35.9	304.4	24.3	49.9	188.3	1,366.6
1963	1,874	286	34.7	251.1	26.1	52.2	176.2	1,288.0
1958	1,758	280	34.8	217.0	24.5	50.1	135.2	1,252.1
1954[3]	2,254	324	40.1	206.1	30.2	60.6	142.4	[2]1,329.5
1939[4]	[5]2,049	(NA)	40.7	76.9	33.6	68.5	57.3	318.4
1919[6]	785	(NA)	22.3	37.6	19.7	(NA)	32.3	121.7
1909[6]	2,205	(NA)	25.1	24.5	22.6	(NA)	21.2	32.8
1902[7]	[5]2,048	(NA)	16.3	14.7	[8]14.5	(NA)	12.5	21.7
Excluding oil and gas extraction industries:								
1967	606	128	12.9	107.7	9.5	19.4	75.2	301.9
1963	1,044	143	14.1	94.0	11.3	23.7	71.5	264.4
1958	842	122	11.7	66.5	9.0	20.0	48.6	197.9
1954[3]	1,286	128	12.6	58.6	9.9	20.9	44.3	[2]158.9
1939[4]	[5]797	(NA)	15.5	26.3	13.8	32.3	22.0	60.3
1929[9]	533	(NA)	10.5	17.2	9.2	(NA)	13.9	27.9
1919[6]	369	(NA)	8.0	11.3	7.3	(NA)	9.8	14.7
1909[6]	1,515	(NA)	17.0	15.5	15.7	(NA)	13.6	21.4
1902[10]	[5]1,743	(NA)	14.8	13.1	[8]13.4	(NA)	11.4	18.6

Kind of operation and year	Selected expenses				Value of shipments and receipts[11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12]497.0	([12])	190.7	([12])	1,687.8	342.6	(NA)
1963	203.9	149.9	132.0	56.4	1,569.9	225.9	37.1
1958	160.7	107.5	104.3	44.6	1,480.2	162.3	36.3
1954	163.7	[13]29.0	141.1	67.6	[2]1,494.7	221.8	38.4
Including operations in manufactures:							
1967	[14]692.9	([14])	([14])	([14])	1,717.3	(NA)	(NA)
1963	[15]213.2	150.1	[15]132.0	[16]56.4	1,613.7	[16]226.0	[16]37.1
1958	[15]166.8	107.5	[15]104.3	[16]44.6	1,513.0	[16]162.3	[16]36.3
1954[3]	[15]166.8	[13]29.0	[15]141.1	[16]67.6	[2]1,512.2	[16]221.9	[16]38.4
1939[4]	42.5	(NA)	20.7	(NA)	381.6	(NA)	29.0
1919[6]	39.8	.9	1.4	(NA)	163.8	(NA)	[17]20.0
1909[6]	27.0	2.8	.8	(NA)	63.4	(NA)	(NA)
1902[7]	6.5	(NA)	.7	(NA)	28.9	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	123.4	([14])	([14])	([14])	383.2	(NA)	(NA)
1963	[15]78.2	.9	[15]8.1	[16]21.8	342.4	[16]30.9	[16]6.8
1958	[15]57.5	1.1	[15]5.2	[16]9.8	251.5	[16]19.9	[16]6.4
1954[3]	[15] [18]45.6	[18]5.0	[15]7.7	[16]13.5	[2]208.6	[16]22.2	[16]5.0
1939[4]	18.0	(NA)	.4	(NA)	78.9	(NA)	2.9
1929[9]	10.0	(NA)	.7	2.0	38.6	(NA)	.9
1919[6]	9.3	.4	.4	(NA)	24.7	(NA)	[17]3
1909[6]	9.6	2.8	.4	(NA)	34.1	(NA)	(NA)
1902[10]	5.0	(NA)	.3	(NA)	23.9	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1--California--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 350 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operations was $47 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for limestone and slate is not available.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand and gravel mining operations and for stone quarries operated as parts of cement and lime establishments. The value of products of such establishments in 1929 was about $9,669 million. See also footnote 9.

[7]Excludes data for sand, gravel, common clay, and shale mining operations. Includes data for 2 cement plants and for lime plants producing lime valued at $396 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Excludes data for common clay and shale mining operations for 1929. In 1939, there were 28 such mines, with products valued at $292 thousand.

[10]Includes data for nonproducing crude petroleum establishments, at which expenditures were about $500 thousand. See also footnote 7.

[11]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes the cost of natural gas processed at natural gas liquid plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[14]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[15]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[16]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[17]Excludes purchased electric energy. For "All operations" in 1939, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hr. equivalent of energy used, but for "Excluding oil and gas extraction industries" in 1929, to 20 percent.

[18]Figures for minerals received for preparation for the Oil and Gas Extraction and Nonmetallic Minerals Mining Industries are included with those for supplies, purchases for resale, and purchased fuels and electricity.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,438	329	35.0	298.1	23.4	48.1	182.2	1,342.2	687.7	1,687.8	342.6	32.9	1,253.6
10	Metal mining	107	15	2.5	21.3	2.1	4.2	16.2	76.7	(D)	88.6	(D)	(NA)	(NA)
1011	Iron ores	2	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1033	Zinc ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
104	Gold and silver ores	36	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1042	Lode gold	18	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1043	Placer gold	11	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
106	Ferroalloy ores, except vanadium	8	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1064	Tungsten ores	6	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	44	7	.6	4.4	.5	1.2	3.7	10.6	6.6	14.1	3.1	.3	2.3
1092	Mercury ores	35	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.0
1099	Metallic ores, n.e.c.	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	5	1	.1	.8	.1	.2	.7	1.2	(D)	1.8	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	5	1	.1	.8	.1	.2	.7	1.2	(D)	1.8	(D)	(D)	(D)
1213	Bituminous and lignite mining services n.e.c.	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
13	Oil and gas extraction	902	216	23.0	196.7	14.8	30.5	113.1	1,064.7	569.5	1,344.1	300.2	20.6	1,023.6
1311	Crude petroleum and natural gas	429	90	14.1	126.1	7.4	14.9	57.0	906.3	367.0	998.6	274.7	13.2	885.9
	Crude petroleum	384	82	13.4	120.4	7.0	14.1	54.2	816.2	350.8	915.6	251.5	(D)	(D)
	Natural gas	45	8	.7	5.7	.4	.9	2.8	90.1	16.2	83.0	23.2	(D)	(D)
1321	Natural gas liquids	51	13	.8	6.7	.7	1.4	6.0	38.6	153.8	187.4	5.1	1.3	63.9
138	Oil and gas field services	422	113	8.1	63.9	6.7	14.2	50.2	119.8	48.7	148.2	20.5	6.1	73.7
1381	Drilling oil and gas wells	100	36	3.0	25.7	2.4	5.2	19.9	47.5	25.7	61.8	11.5	2.9	35.0
1382	Oil and gas exploration services	44	8	.7	5.8	.4	1.0	3.4	8.5	4.0	11.2	1.3	.7	11.5
1389	Oil and gas field services, n.e.c.	278	69	4.4	32.4	3.8	8.0	26.9	63.9	19.0	75.2	7.6	2.6	27.8
14	Nonmetallic minerals, except fuels	424	97	9.4	79.4	6.5	13.2	51.5	216.8	81.2	263.2	34.8	10.7	199.9
142	Crushed and broken stone	90	16	1.2	10.9	1.1	2.2	9.0	27.8	10.7	35.7	2.8	1.5	24.6
1422	Crushed and broken limestone	26	2	.2	2.0	.2	.5	1.8	4.6	1.9	6.0	.5	(NA)	(NA)
1423	Crushed and broken granite	14	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	50	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	11.3
144	Sand and gravel	212	53	3.5	28.9	2.3	4.6	19.1	71.2	31.1	88.0	14.3	4.8	86.1
1442	Construction sand and gravel	202	49	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.6	82.6
1443	Glass sand	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1445	Industrial sand, n.e.c.	6	2	.1	.8	(Z)	.2	.5	2.0	.9	2.7	.1	(D)	(D)
145	Clay and related minerals	25	6	.3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.4
1459	Clay and related minerals, n.e.c.	15	5	.3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.4
147	Chemical and fertilizer minerals	17	9	2.9	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1474	Potash, soda, and borate minerals	10	8	2.8	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	3	1	.1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	6	1	.1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.7
149	Miscellaneous nonmetallic minerals	57	12	1.3	10.7	1.1	2.3	8.0	33.3	14.9	45.8	2.4	1.2	24.9
1493	Mica	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1495	Pumice and pumicite	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	14	2	.1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	22	7	1.0	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	70	15	0.9	6.3	0.9	1.8	6.1	24.4	5.2	29.5	(NA)	1.7	34.4
142	Crushed and broken stone (limestone)	18	8	0.5	3.5	0.5	1.0	3.5	13.4	3.2	16.6	(NA)	(NA)	(NA)
144	Sand and gravel	31	4	0.3	1.5	0.3	0.5	1.5	6.8	1.1	7.9	(NA)	0.4	10.5
145	Clay and related minerals	16	-	(Z)	0.2	(Z)	0.1	0.2	0.9	0.2	1.1	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1]For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	California:													
	Establishments.....number..	1,438	1,405	354	41	72	241	303	12	258	33	63	685	33
	Employees.....1,000..	35.0	34.9	11.0	(D)	.4	(D)	9.8	.8	7.1	1.9	.9	13.2	.1
	Value added in mining..mil.dol..	1,342.2	1,342.0	904.7	(D)	6.0	(D)	260.2	16.2	204.4	39.6	40.7	36.6	.2
10	Metal mining:													
	Establishments.....number..	107	99	39	29	10	-	49	8	38	3	-	11	8
	Employees.....1,000..	2.4	(D)	.1	(Z)	.1	-	(D)	.6	1.4	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	59.7	(D)	.5	.3	.2	-	(D)	5.4	40.2	(D)	-	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	4	3	2	-	2	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	7	7	5	5	-	-	1	1	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	-
104	Gold and silver ores:													
	Establishments.....number..	36	33	19	19	-	-	12	1	11	-	-	2	3
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	.1	(D)	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	.1	.1	-	-	1.4	(D)	(D)	-	-	(D)	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	8	8	5	3	2	-	3	2	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	(D)	-	-	-
1081	Metal mining services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	44	40	8	2	6	-	31	4	25	2	-	1	4
	Employees.....1,000..	.6	(D)	(Z)	(D)	(D)	-	.6	(D)	.3	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	10.6	(D)	(D)	(D)	(D)	-	10.4	(D)	5.1	(D)	-	(D)	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	5	4	2	-	2	-	-	-	-	-	-	2	1
	Employees.....1,000..	.1	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining...mil.dol..	1.2	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	5	4	2	-	2	-	-	-	-	-	-	2	1
	Employees.....1,000..	.1	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	1.2	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	902	880	237	-	-	237	-	-	-	-	50	593	22
	Employees.....1,000..	23.0	22.9	(D)	-	-	(D)	-	-	-	-	(D)	11.6	.1
	Value added in mining..mil.dol..	1,064.7	1,064.6	(D)	-	-	(D)	-	-	-	-	(D)	129.9	.1
131	Crude petroleum and natural gas:													
	Establishments.....number..	429	408	237	-	-	237	-	-	-	-	-	171	21
	Employees.....1,000..	14.1	(D)	(D)	-	-	(D)	-	-	-	-	-	3.6	(D)
	Value added in mining..mil.dol..	906.3	(D)	(D)	-	-	(D)	-	-	-	-	-	10.1	(D)
1321	Natural gas liquids:													
	Establishments.....number..	51	50	-	-	-	-	-	-	-	-	50	-	1
	Employees.....1,000..	.8	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	38.6	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	422	422	-	-	-	-	-	-	-	-	-	422	-
	Employees.....1,000..	8.1	8.1	-	-	-	-	-	-	-	-	-	8.1	-
	Value added in mining..mil.dol..	119.8	119.8	-	-	-	-	-	-	-	-	-	119.8	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	424	422	76	12	60	4	254	4	220	30	13	79	2
	Employees.....1,000..	9.4	(D)	.4	(D)	.3	(D)	7.5	(D)	5.7	(D)	(D)	1.4	(D)
	Value added in mining..mil.dol..	216.7	(D)	7.9	(D)	5.7	(D)	201.8	(D)	164.2	(D)	(D)	5.0	(D)
141	Dimension stone:													
	Establishments.....number..	17	17	16	-	16	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	.4	-	.4	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	California--Continued													
14	Nonmetallic minerals, except fuels--Continued													
142	Crushed and broken stone:													
	Establishments.....number..	90	89	8	1	7	-	73	1	72	-	7	1	1
	Employees.....1,000..	1.2	(D)	.1	(D)	(D)	-	(D)	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	27.8	(D)	2.7	(D)	(D)	-	(D)	(D)	(D)	-	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	212	211	12	-	9	3	127	-	103	24	6	66	1
	Employees.....1,000..	3.5	(D)	(Z)	-	(D)	(D)	2.9	-	2.6	.3	(D)	.5	(D)
	Value added in mining..mil.dol..	71.2	(D)	.5	-	(D)	(D)	66.4	-	61.1	5.3	(D)	3.5	(D)
145	Clay and related minerals:													
	Establishments.....number..	25	25	14	-	13	1	11	-	11	-	-	-	-
	Employees.....1,000..	(D)	(D)	.2	-	(D)	(D)	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	1.5	-	(D)	(D)	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	17	17	5	-	5	-	8	1	3	4	-	4	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	(D)	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	.2	-	.2	-	(D)	(D)	(D)	(D)	-	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	57	57	21	11	10	-	34	2	30	2	-	2	-
	Employees.....1,000..	1.3	1.3	.1	(D)	(D)	-	1.2	(D)	1.2	(D)	-	(D)	-
	Value added in mining..mil.dol..	33.3	33.3	2.6	(D)	(D)	-	30.3	(D)	30.0	(D)	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,438	1,734	Cost of supplies, total.....million dollars..	687.7	542.2
With 0 to 19 employees.....do....	1,109	1,470	Supplies used, minerals received for preparation, and purchased machinery.....do....	440.2	(NA)
With 20 to 99 employees.....do....	259	216	Cost of resales.....do....	3.5	(NA)
With 100 or more employees.....do....	70	48	Purchased fuels consumed.....do....	22.1	(NA)
All employees (average for year).....1,000..	35.0	32.9	Electric energy:		
			Quantity purchased.....million kw.-hrs..	2,474.7	(NA)
Payroll (all employees), total for year.....million dollars..	298.1	242.2	Cost.....million dollars..	31.2	(NA)
			Generated less sold.....million kw.-hrs..	313.5	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	190.7	132.0
Average for the year.....1,000..	23.4	24.3	Value of shipments and receipts (including resales), total.....do....	1,687.8	1,569.9
March.....do....	23.3	(NA)	Value of resales.....do....	4.2	(NA)
May.....do....	23.4	(NA)			
August.....do....	23.9	(NA)	Value added in mining.....do....	1,342.2	1,253.6
November.....do....	23.1	(NA)			
			Capital expenditures (except land and mineral rights), total.....do....	342.6	225.9
Man-hours.....millions..	48.1	48.8	Mineral development and exploration.....do....	163.0	149.8
			New structures and additions.....do....	35.6	76.1
Wages.....million dollars..	182.2	167.5	New machinery and equipment.....do....	136.1	
			Used plant and equipment.....do....	7.9	
Supplemental labor cost not included in payroll.....do..	31.9	(NA)			
			Mineral development and exploration expenditures, total.....do....	214.3	(NA)
Legally required expenditures, including Social Security contributions.....do..	16.3	(NA)	Capitalized.....do....	163.0	149.8
Payments for voluntary programs.....do..	15.6	(NA)	Expensed.....do....	51.3	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	California, total	1,438	329	35.0	298.1	23.4	48.1	182.2	1,342.2	687.7	1,687.8	342.6	32.9	1,253.6
	COUNTIES[2]													
	Alameda county, total	23	6	.2	1.8	.2	.3	1.4	3.1	(D)	4.0	(D)	1.1	10.9
14	Nonmetallic minerals, except fuels	11	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	10.8
144	Sand and gravel	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	9.6
	Calaveras county, total	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	.7
14	Nonmetallic minerals, except fuels	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Contra Costa county, total	29	4	.3	3.0	.3	.6	2.6	13.6	4.6	16.6	1.6	.3	10.6
14	Nonmetallic minerals, except fuels	10	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	6	3	.1	1.2	.1	.2	1.0	3.3	1.6	4.3	.6	.2	2.9
144	Sand and gravel	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	El Dorado county, total	5	1	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.9
	Fresno county, total	59	12	.8	6.5	.6	1.3	4.9	58.2	17.8	71.4	4.5	1.1	69.5
13	Oil and gas extraction	45	8	.7	5.2	.5	1.0	3.9	54.1	15.8	65.7	4.3	.9	66.7
131	Crude petroleum and natural gas	23	4	.4	3.3	.3	.5	2.3	50.7	10.9	57.7	4.0	.5	62.8
138	Oil and gas field services	20	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	12	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Inyo county, total	19	4	.7	5.2	.5	1.1	3.8	14.1	12.7	23.4	3.4	.5	7.0
10	Metal mining	9	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Kern county, total	273	68	8.0	64.4	5.6	11.3	41.3	378.8	169.7	457.5	91.0	7.3	313.1
13	Oil and gas extraction	253	66	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	6.3	279.8
131	Crude petroleum and natural gas	111	22	4.7	39.0	2.7	5.5	20.4	288.2	86.3	301.7	72.9	4.1	245.7
132	Natural gas liquids	15	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	12.7
138	Oil and gas field services	127	37	2.2	15.9	2.0	4.0	13.3	33.0	10.5	38.0	5.4	1.7	21.4
14	Nonmetallic minerals, except fuels	18	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Kings county, total	22	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	11.6
13	Oil and gas extraction	21	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	11.6
131	Crude petroleum and natural gas	10	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	7.4
	Los Angeles county, total	386	104	10.1	89.6	5.0	10.1	36.9	248.4	119.5	324.5	43.4	8.5	282.6
13	Oil and gas extraction	319	80	7.9	69.9	4.2	8.5	30.8	216.5	111.0	288.9	38.7	5.3	256.4
131	Crude petroleum and natural gas	173	38	4.5	42.6	1.7	3.4	12.3	176.6	73.4	217.9	32.1	3.3	222.2
132	Natural gas liquids	15	2	.2	1.7	.2	.4	1.5	8.3	25.0	33.0	.2	.3	15.4
138	Oil and gas field services	131	40	3.2	25.7	2.3	4.8	16.9	31.7	12.6	38.0	6.3	1.7	18.8
14	Nonmetallic minerals, except fuels	59	24	2.2	19.5	.8	1.6	6.0	31.6	8.4	35.3	4.7	1.1	26.1
142	Crushed and broken stone	8	3	.1	1.3	.1	.2	1.0	3.9	2.2	5.8	.2	.1	3.1
144	Sand and gravel	27	16	1.3	10.3	.5	1.1	4.2	24.3	5.4	25.5	4.2	.9	22.0
147	Chemical and fertilizer minerals	8	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	California-Continued													
	COUNTIES[2]--Continued													
	Monterey county, total	14	4	.2	1.5	.2	.3	1.3	27.7	9.0	31.7	5.0	.3	24.8
13	Oil and gas extraction	8	3	.2	1.3	.1	.3	1.2	25.6	9.6	30.5	4.8	.1	21.8
131	Crude petroleum and natural gas	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	21.2
	Napa county, total	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Orange county, total	115	21	2.4	21.5	1.4	2.7	11.3	62.8	46.0	83.4	25.4	2.3	78.3
13	Oil and gas extraction	88	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	70.2
131	Crude petroleum and natural gas	49	8	1.6	14.6	.8	1.6	6.8	48.2	29.9	55.0	23.1	1.0	60.7
138	Oil and gas field services	35	5	.3	2.5	.2	.5	1.9	3.5	1.5	4.9	.2	.5	4.5
14	Nonmetallic minerals, except fuels	24	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	15	4	.2	2.0	.2	.4	1.4	5.4	3.2	7.0	1.6	.2	7.5
	Riverside county, total	24	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	25.7
10	Metal mining	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	19	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Sacramento county, total	27	2	.2	1.5	.1	.3	1.2	7.2	2.2	7.5	1.9	.4	20.3
14	Nonmetallic minerals, except fuels	8	2	.1	1.1	.1	.2	.9	3.1	1.2	4.2	.1	(D)	(D)
144	Sand and gravel	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	San Benito county, total	12	5	.5	3.5	.3	.7	2.7	6.5	3.9	9.7	.7	.3	5.3
10	Metal mining	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.2
	San Bernardino county, total	42	9	1.9	15.9	1.5	3.2	11.6	42.4	20.5	55.8	7.1	1.8	35.7
10	Metal mining	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.8
109	Miscellaneous metal ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	31	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	34.7
142	Crushed and broken stone	10	1	.1	1.2	.1	.3	1.0	2.5	.9	3.3	.2	.1	.8
147	Chemical and fertilizer minerals	4	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	San Diego county, total	32	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	7.7
14	Nonmetallic minerals, except fuels	25	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.8
144	Sand and gravel	16	5	.3	2.1	.2	.4	1.7	5.2	1.8	6.4	.6	.5	6.6
	San Francisco county, total	18	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	.5
13	Oil and gas extraction	8	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	San Joaquin county, total	27	1	.1	1.1	.1	.2	.8	9.7	3.2	11.9	.9	.3	11.1
	San Luis Obispo county, total	18	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.8

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	California-Continued													
	COUNTIES[2]--Continued													
	Santa Barbara county, total.....	66	16	1.6	13.4	1.3	2.8	10.9	80.9	51.7	124.2	8.4	1.6	77.4
13	Oil and gas extraction.....	50	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	21	4	.4	3.2	.3	.7	2.5	47.0	10.1	52.8	4.3	.5	50.2
138	Oil and gas field services...	21	6	.3	2.5	.3	.6	2.3	4.3	1.5	5.2	.6	(D)	(D)
14	Nonmetallic minerals, except fuels.....	11	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals.....	4	3	.7	6.0	.6	1.3	4.7	23.4	7.4	29.7	1.1	(D)	(D)
	Santa Clara county, total.....	25	3	.2	1.3	.1	.2	1.0	3.0	1.4	4.1	.3	.2	4.1
14	Nonmetallic minerals, except fuels.....	13	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Solano county, total.....	31	4	.3	2.8	.2	.5	1.9	28.7	5.4	29.3	4.8	.2	15.7
13	Oil and gas extraction.....	25	4	.3	2.7	.2	.5	1.8	28.5	5.4	29.1	4.8	.1	15.5
131	Crude petroleum and natural gas.....	13	2	.1	1.2	.1	.1	.5	25.6	4.0	25.3	4.3	.1	13.9
138	Oil and gas field services...	12	2	.2	1.5	.2	.4	1.4	2.9	1.3	3.8	.4	.1	1.6
	Sonoma county, total.....	26	4	.3	2.1	.2	.5	1.6	4.3	2.0	5.7	.6	.2	3.0
14	Nonmetallic minerals, except fuels.....	16	2	.2	1.1	.2	.3	.9	3.2	1.4	4.2	.4	.2	2.8
144	Sand and gravel.....	8	2	.1	1.0	.1	.3	.8	2.8	1.2	3.6	.4	.2	2.4
	Ventura county, total.....	93	24	1.8	14.7	1.4	3.0	11.3	83.7	27.3	92.3	18.7	2.1	113.2
13	Oil and gas extraction.....	77	20	1.6	13.4	1.3	2.7	10.3	81.2	25.9	88.8	18.3	1.9	109.7
131	Crude petroleum and natural gas.....	35	11	1.0	8.7	.7	1.6	6.1	66.0	15.0	64.0	17.0	1.1	82.2
138	Oil and gas field services...	36	8	.5	4.0	.5	.9	3.5	6.3	3.6	9.1	.8	.6	7.1
14	Nonmetallic minerals, except fuels.....	16	4	.2	1.3	.1	.3	1.0	2.5	1.3	3.4	.4	.2	3.5
144	Sand and gravel.....	9	3	.1	.8	.1	.2	.6	1.6	.8	2.1	.3	.1	2.7
	Offshore.....	43	18	1.6	15.1	1.2	2.8	11.0	157.4	127.3	176.0	109.9	.5	83.4
13	Oil and gas extraction.....	43	18	1.6	15.1	1.2	2.8	11.0	157.4	127.3	176.0	109.9	.5	83.4
131	Crude petroleum and natural gas.....	14	7	.7	6.6	.4	.8	3.0	132.8	114.7	144.8	102.7	.1	76.3
138	Oil and gas field services...	29	11	.9	8.5	.8	2.0	8.0	24.6	12.6	31.2	7.1	.4	7.1

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
California, total	1,438	107	-	5	902	424
0 to 4 employees	689	72	-	2	449	166
5 to 9 employees	221	11	-	2	125	83
10 to 19 employees	199	9	-	-	112	78
20 to 49 employees	181	7	-	-	109	65
50 to 99 employees	78	4	-	1	55	18
100 to 249 employees	48	2	-	-	38	8
250 to 499 employees	15	1	-	-	11	3
500 to 999 employees	4	-	-	-	1	3
1,000 to 2,499 employees	3	1	-	-	2	-
Alameda county, total	23	6	-	1	5	11
0 to 19 employees	17	6	-	-	5	6
20 to 99 employees	6	-	-	1	-	5
Amador county, total	9	1	-	3	-	5
0 to 19 employees	8	1	-	3	-	4
20 to 99 employees	1	-	-	-	-	1
Butte county, total	16	2	-	1	6	7
0 to 19 employees	15	2	-	1	6	6
20 to 99 employees	1	-	-	-	-	1
Calaveras county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Colusa county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Contra Costa county, total	29	1	-	1	17	10
0 to 19 employees	25	1	-	1	17	6
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	1	-	-	-	-	1
Del Norte county, total	3	1	-	-	1	1
0 to 19 employees	3	1	-	-	1	1
El Dorado county, total	5	-	-	1	-	4
0 to 19 employees	4	-	-	1	-	3
20 to 99 employees	1	-	-	-	-	1
Fresno county, total	59	2	-	-	45	12
0 to 19 employees	47	2	-	-	37	8
20 to 99 employees	11	-	-	-	7	4
100 to 249 employees	1	-	-	-	1	-
Glenn county, total	14	-	-	-	12	2
0 to 19 employees	14	-	-	-	12	2
Humboldt county, total	7	1	-	1	1	4
0 to 19 employees	7	1	-	1	1	4
Imperial county, total	8	2	-	-	2	4
0 to 19 employees	8	2	-	-	2	4
Inyo county, total	19	9	-	1	-	9
0 to 19 employees	15	7	-	1	-	7
20 to 99 employees	3	1	-	-	-	2
250 employees and over	1	1	-	-	-	-
Kern county, total	273	2	-	-	253	18
0 to 19 employees	205	2	-	-	187	16
20 to 99 employees	55	-	-	-	54	1
100 to 249 employees	7	-	-	-	7	-
250 employees and over	8	-	-	-	5	1
Kings county, total	22	1	-	-	21	-
0 to 19 employees	20	1	-	-	19	-
20 to 99 employees	1	-	-	-	1	-
100 to 249 employees	1	-	-	-	1	-
Lake county, total	5	3	-	-	-	2
0 to 19 employees	4	2	-	-	-	2
20 to 99 employees	1	1	-	-	-	-
Lassen county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Los Angeles county, total	386	7	-	1	319	59
0 to 19 employees	282	7	-	1	239	35
20 to 99 employees	78	-	-	-	59	19
100 to 249 employees	18	-	-	-	15	3
250 employees and over	8	-	-	-	6	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
California-Continued						
Madera county, total	5	1	-	-	3	1
0 to 19 employees	4	-	-	-	3	1
20 to 99 employees	1	1	-	-	-	-
Marin county, total	6	-	-	-	-	6
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	2	-	-	-	-	2
Mariposa county, total	3	1	-	-	-	2
0 to 19 employees	3	1	-	-	-	2
Mendocino county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Merced county, total	5	-	-	-	1	4
0 to 19 employees	5	-	-	-	1	4
Modoc county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Mono county, total	5	1	-	-	-	4
0 to 19 employees	4	1	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Monterey county, total	15	-	-	-	8	7
0 to 19 employees	10	-	-	-	5	5
20 to 99 employees	5	-	-	-	3	2
Napa county, total	6	1	-	-	1	4
0 to 19 employees	4	1	-	-	1	2
20 to 99 employees	2	-	-	-	-	2
Nevada county, total	6	3	-	1	-	2
0 to 19 employees	6	3	-	1	-	2
Orange county, total	115	3	-	-	88	24
0 to 19 employees	94	3	-	-	74	17
20 to 99 employees	18	-	-	-	11	7
100 to 249 employees	1	-	-	-	1	-
250 employees and over	2	-	-	-	2	-
Placer county, total	8	-	-	1	-	7
0 to 19 employees	8	-	-	1	-	7
Plumas county, total	8	3	-	1	-	4
0 to 19 employees	7	3	-	-	-	4
20 to 99 employees	1	-	-	1	-	-
Riverside county, total	24	2	-	1	2	19
0 to 19 employees	21	1	-	1	2	17
20 to 99 employees	2	-	-	-	-	2
250 employees and over	1	1	-	-	-	-
Sacramento county, total	27	1	-	-	18	8
0 to 19 employees	25	1	-	-	18	6
20 to 99 employees	2	-	-	-	-	2
San Benito county, total	11	2	-	-	5	4
0 to 19 employees	7	1	-	-	5	1
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	2	1	-	-	-	1
San Bernardino county, total	42	6	-	1	4	31
0 to 19 employees	33	3	-	1	4	25
20 to 99 employees	6	2	-	-	-	4
100 to 249 employees	1	1	-	-	-	-
250 employees and over	2	-	-	-	-	2
San Diego county, total	32	2	-	-	5	25
0 to 19 employees	26	2	-	-	5	19
20 to 99 employees	5	-	-	-	-	5
100 to 249 employees	1	-	-	-	-	1
San Francisco county, total	18	7	-	-	8	3
0 to 19 employees	14	6	-	-	5	3
20 to 99 employees	3	1	-	-	2	-
100 to 249 employees	1	-	-	-	1	-
San Joaquin county, total	27	2	-	1	21	3
0 to 19 employees	26	2	-	1	21	2
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
California-Continued						
San Luis Obispo county, total	18	3	-	1	11	3
0 to 19 employees	16	2	-	1	10	3
20 to 99 employees	2	1	-	-	1	-
San Mateo county, total	7	-	-	-	5	2
0 to 19 employees	7	-	-	-	5	2
Santa Barbara county, total	66	5	-	-	50	11
0 to 19 employees	50	5	-	-	39	6
20 to 99 employees	13	-	-	-	10	3
100 to 249 employees	2	-	-	-	1	1
250 employees and over	1	-	-	-	-	1
Santa Clara county, total	25	7	-	1	4	13
0 to 19 employees	22	6	-	1	4	11
20 to 99 employees	3	1	-	-	-	2
Santa Cruz county, total	8	-	-	1	-	7
0 to 19 employees	8	-	-	1	-	7
Shasta county, total	4	1	-	-	1	2
0 to 19 employees	4	1	-	-	1	2
Sierra county, total	6	6	-	-	-	-
0 to 19 employees	6	6	-	-	-	-
Siskiyou county, total	7	2	-	-	-	5
0 to 19 employees	7	2	-	-	-	5
Solano county, total	31	-	-	-	25	6
0 to 19 employees	27	-	-	-	21	6
20 to 99 employees	4	-	-	-	4	-
Sonoma county, total	26	7	-	-	3	16
0 to 19 employees	22	5	-	-	3	14
20 to 99 employees	4	2	-	-	-	2
Stanislaus county, total	9	-	-	-	1	8
0 to 19 employees	8	-	-	-	1	7
20 to 99 employees	1	-	-	-	-	1
Sutter county, total	8	1	-	-	5	2
0 to 19 employees	8	1	-	-	5	2
Tehama county, total	7	-	-	-	6	1
0 to 19 employees	7	-	-	-	6	1
Trinity county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Tulare county, total	15	-	-	-	13	2
0 to 19 employees	15	-	-	-	13	2
Tuolumne county, total	7	2	-	1	-	4
0 to 19 employees	6	2	-	1	-	3
20 to 99 employees	1	-	-	-	-	1
Ventura county, total	93	-	-	-	77	16
0 to 19 employees	69	-	-	-	57	12
20 to 99 employees	21	-	-	-	17	4
100 to 249 employees	2	-	-	-	2	-
250 employees and over	1	-	-	-	1	-
Yolo county, total	12	-	-	-	8	4
0 to 19 employees	10	-	-	-	8	2
20 to 99 employees	2	-	-	-	-	2
Yuba county, total	4	1	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	1	-	-	-	-
Offshore, total	40	-	-	-	40	-
0 to 19 employees	23	-	-	-	23	-
20 to 99 employees	10	-	-	-	10	-
100 to 249 employees	7	-	-	-	7	-

Standard Notes: -Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-866

1967 CENSUS OF Mineral Industries



MIC67(2)-6

AREA STATISTICS

COLORADO

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

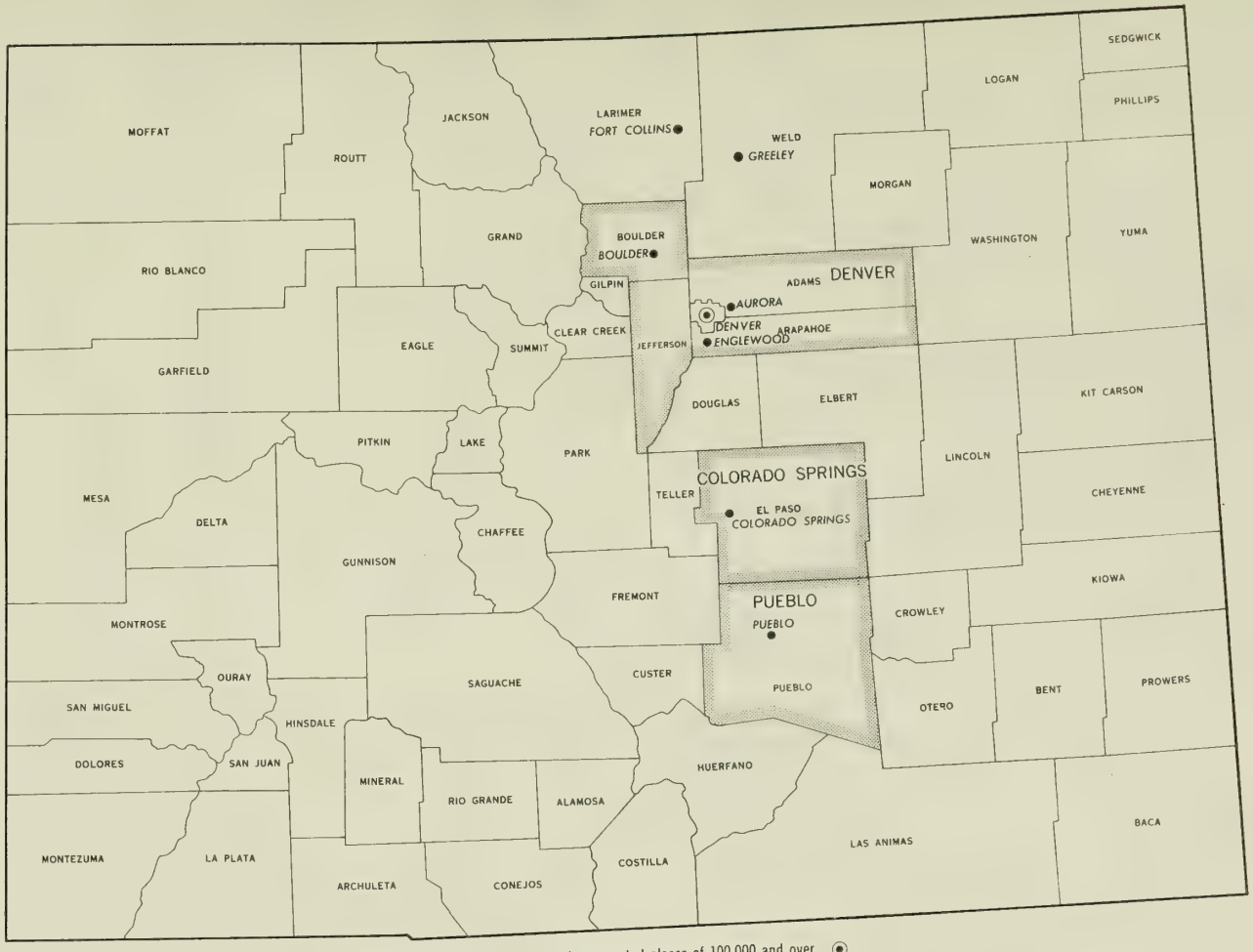
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]648	95	12.0	94.6	8.4	16.4	57.2	251.4
1963	[1]858	83	11.2	72.7	8.4	16.2	48.3	253.3
1958	967	129	14.1	76.2	9.9	19.0	47.5	249.4
1954	1,020	117	13.6	59.5	10.8	21.0	43.9	[2]204.5
Including operations in manufactures:								
1967	669	95	12.1	95.1	8.5	16.6	57.7	254.2
1963	897	84	11.4	73.6	8.6	16.5	49.3	257.3
1958	992	132	14.3	76.9	10.0	19.3	48.2	-255.9
1954 [3]	1,043	118	13.7	60.0	11.0	21.3	44.4	[2]207.5
1939 [4]	[5]589	(NA)	14.8	19.8	13.5	23.4	16.8	41.9
1929 [6]	431	(NA)	16.1	25.5	15.1	(NA)	23.1	32.2
1919 [7]	537	(NA)	18.7	29.0	17.3	(NA)	26.0	35.6
1909 [7]	[5]1,060	(NA)	24.2	22.1	22.6	(NA)	19.7	29.6
1902 [8]	[5]1,998	(NA)	25.2	24.3	[9]22.9	(NA)	21.2	31.6

Kind of operation and year	Selected expenses				Value of shipments and receipts [10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11]109.0	([11])	25.5	([11])	339.1	46.9	(NA)
1963	51.4	31.1	23.2	12.4	335.8	35.6	5.5
1958	67.4	37.0	36.3	31.4	362.5	59.1	6.2
1954	49.9	[12]3.4	40.8	24.8	[2]258.9	56.5	4.9
Including operations in manufactures:							
1967	[13]134.9	([13])	([13])	([13])	342.3	(NA)	(NA)
1963	[14] 52.1	31.2	[14]23.2	[15]12.5	340.5	[15]35.7	[15]5.5
1958	[14] 68.0	37.0	[14]36.3	[15]31.4	369.5	[15]59.1	[15]6.2
1954 [3]	[14] 50.2	[12]3.4	[14]40.8	[15]24.8	[2]262.2	[15]56.5	[15]4.9
1939 [4]	9.8	(NA)	.6	(NA)	52.3	(NA)	2.1
1929 [6]	8.7	(NA)	.6	1.8	41.5	(NA)	2.3
1919 [7]	10.9	4.3	.4	(NA)	51.2	(NA)	[16]3.2
1909 [7]	7.0	6.0	3.1	(NA)	45.7	(NA)	(NA)
1902 [8]	8.0	(NA)	1.0	(NA)	40.6	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1] In 1967, for the first time data for single unit establishments without paid employees were excluded from the Census. In 1963, there were 181 single unit establishments without paid employees in this State. In the 1963 Census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes data for the Uranium-Radium-Vanadium Ores Industry. No data on value of shipments or cost of minerals received for preparation were obtained for this industry.

[3] Excludes data for sand and gravel mining operations in manufacturing establishments.

[4] Excludes data for dimension stone dressing plants, if any, operated in conjunction with 5 dimension stone quarries.

[5] Represents number of mines and quarries, number of natural gasoline plants, and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[6] Excludes data for the oil and gas extraction industries and for common clay and shale mining operations. In 1939, the value of products and services of such operations was $1,607 thousand.

[7] Excludes data for sand, gravel, common clay, and shale mining operations. In 1939, the value of products of such operations was $567 thousand.

[8] Includes data for one cement plant and for lime plants producing lime valued at $46 thousand. See also footnote 7.

[9] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10] For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1963, 1958, 1954, 1919, 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[11] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12] Excludes the cost of natural gas received for processing, but includes the estimated value prior to processing of natural gas liquids contained in such gas. See also footnote 2.

[13] Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14] For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, and for dimension stone mining operations in manufactures in 1958, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels, etc.

[15] Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[16] Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 4 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	648	95	12.0	94.6	8.4	16.4	57.2	251.4	134.5	339.1	46.9	11.2	253.3
10	Metal mining	158	21	5.8	42.8	4.6	9.1	30.9	96.1	61.5	143.8	13.9	5.0	94.8
103	Lead and zinc ores	12	5	1.1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1032	Lead ores	7	1	.1	.6	.1	.2	.5	1.0	.4	1.0	.3	(NA)	(NA)
1033	Zinc ores	5	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	19	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.1
1044	Silver ores	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium	10	3	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1069	Ferroalloy ores, n.e.c.	5	3	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	17	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	94	10	1.6	11.6	1.2	2.4	7.8	37.5	28.0	60.1	5.4	1.7	30.1
1094	Uranium-Radium-Vanadium ores	86	10	1.6	11.2	1.2	2.4	7.7	37.3	28.0	59.9	5.4	1.7	30.0
12	Bituminous coal and lignite mining	70	14	1.5	10.5	1.3	2.4	9.0	28.5	8.7	34.0	3.2	(D)	(D)
121	Bituminous coal and lignite mining	70	14	1.5	10.5	1.3	2.4	9.0	28.5	8.7	34.0	3.2	(D)	(D)
1211	Bituminous coal	67	12	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	19.5
1213	Bituminous and lignite mining services, n.e.c.	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	350	60	4.9	47.3	1.8	3.7	13.4	115.7	59.1	146.4	28.5	3.6	125.5
131	Crude petroleum and natural gas	185	36	3.5	37.6	.7	1.4	5.7	94.3	35.6	104.5	25.5	2.7	109.9
1312	Crude petroleum	153	30	3.2	34.3	.5	1.0	3.9	85.8	29.5	94.3	21.0	2.3	103.6
1313	Natural gas	31	6	.3	3.3	.2	.4	1.8	8.6	6.1	10.1	4.5	.4	6.3
1321	Natural gas liquids	11	3	.1	.9	.1	.2	.8	3.2	(D)	18.4	(D)	.1	4.8
138	Oil and gas field services	154	21	1.2	8.8	1.0	2.0	6.9	18.2	(D)	23.5	(D)	.8	10.7
1381	Drilling oil and gas wells	41	7	.5	3.9	.4	.8	3.2	6.7	5.1	10.5	1.3	.5	7.0
1382	Oil and gas exploration services	35	3	.2	1.3	.1	.3	1.1	3.7	(D)	4.2	(D)	.1	1.3
1389	Oil and gas field services, n.e.c.	76	11	.6	3.7	.4	.9	2.6	7.7	2.3	8.9	1.2	.2	2.4
14	Nonmetallic minerals, except fuels	93	8	.6	4.8	.6	1.2	3.9	11.1	5.1	14.9	1.3	1.2	13.5
142	Crushed and broken stone	14	3	.1	.9	.1	.3	.7	2.0	1.4	3.3	.2	.1	1.4
1422	Crushed and broken limestone	9	3	.1	.6	.1	.2	.5	1.8	.8	2.4	.1	.1	1.1
144	Sand and gravel	47	3	.4	2.8	.3	.6	2.3	6.7	2.5	8.4	.8	.6	8.1
1442	Construction sand and gravel	46	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	9	1	.1	.5	.1	.1	.4	1.0	(D)	1.5	(D)	.1	1.4
149	Miscellaneous nonmetallic minerals	12	-	.1	.3	.1	.1	.2	.8	.3	.9	.2	.1	1.4

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	21	-	0.1	0.5	0.1	0.2	0.5	2.8	0.4	3.2	(NA)	0.2	4.1

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employment at such operations; hence, the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Colorado:													
	Establishments.....number..	648	620	257	125	35	97	96	32	56	8	17	250	28
	Employees.....1,000..	12.0	11.8	2.2	.6	.1	1.5	6.4	5.7	.7	(Z)	.3	2.8	.2
	Value added in mining..mil.dol..	251.4	251.4	102.6	8.7	2.0	91.8	119.5	105.3	13.4	.8	5.3	24.0	(Z)
10	Metal mining:													
	Establishments.....number..	158	144	100	86	14	-	16	11	3	2	3	25	14
	Employees.....1,000..	5.9	5.8	.6	(D)	(D)	-	4.6	4.6	(D)	(D)	(D)	(D)	.1
	Value added in mining..mil.dol..	96.1	95.8	9.2	(D)	(D)	-	83.4	83.8	(D)	(D)	(D)	(D)	.3
1011	Iron ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	5	4	3	-	3	-		-	-	-	-	1	1
	Employees.....1,000..	(D)	(Z)	(D)	-	(D)	-		-	-		-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(Z)	(D)	-	(D)	-		-	-		-	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	12	10	4	4	-	-	5	5	-	-	1	-	2
	Employees.....1,000..	(D)	1.1	(Z)	(Z)	-	-	(D)	(D)	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	14.3	.1	.1	-	-	(D)	(D)	-	-	(D)	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	19	15	11	11	-	-	4	1	3	-	-	-	4
	Employees.....1,000..	(D)	.1	(Z)	(Z)	-	-	.1	(D)	(D)	-	-	-	(Z)
	Value added in mining..mil.dol..	(D)	.8	.1	.1	-	-	1.7	(D)	(D)	-	-	-	.1
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	10	8	2	2	-	-	5	3	-	2	-	1	2
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	2.8	(D)	-	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	41.0	(D)	-	(D)	-	(D)	(D)
1081	Metal mining services:													
	Establishments.....number..	17	17	-	-	-	-	-	-	-	-	-	17	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	94	89	79	69	10	-	2	2	-	-	2	6	5
	Employees.....1,000..	1.6	1.6	.5	.5	(Z)	-	(D)	(D)	-	-	(D)	(D)	(Z)
	Value added in mining..mil.dol..	37.5	37.5	8.0	7.7	.3	-	(D)	(D)	-	-	(D)	(D)	(Z)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	70	69	37	37	-	-	26	20	5	1	-	6	1
	Employees.....1,000..	1.5	(D)	(Z)	(Z)	-	-	1.2	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	28.5	(D)	.5	.5	-	-	26.6	(D)	(D)	(D)	-	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	70	69	37	37	-	-	26	20	5	1	-	6	1
	Employees.....1,000..	1.5	(D)	(Z)	(Z)	-	-	1.2	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	28.5	(D)	.5	.5	-	-	26.6	(D)	(D)	(D)	-	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	327	314	97	-	-	97	-	-	-	-	11	206	13
	Employees.....1,000..	3.9	(D)	1.5	-	-	1.5	-	-	-	-	.1	(D)	(D)
	Value added in mining..mil.dol..	115.7	(D)	91.8	-	-	91.8	-	-	-	-	3.2	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	165	152	97	-	-	97	-	-	-	-	-	55	13
	Employees.....1,000..	2.6	(D)	1.5	-	-	1.5	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	94.3	(D)	91.8	-	-	91.8	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	11	11	-	-	-	-	-	-	-	-	11	-	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	.1	-	-
	Value added in mining..mil.dol..	3.2	3.2	-	-	-	-	-	-	-	-	3.2	-	-
138	Oil and gas field services:													
	Establishments.....number..	151	151	-	-	-	-	-	-	-	-	-	151	-
	Employees.....1,000..	1.2	1.2	-	-	-	-	-	-	-	-	-	1.2	-
	Value added in mining..mil.dol..	18.2	18.2	-	-	-	-	-	-	-	-	-	18.2	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Colorado--Continued													
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	93	93	23	2	21	-	54	1	48	5	3	13	-
	Employees.....1,000..	.7	.7	.1	(D)	(D)	-	.6	(D)	.5	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	11.1	11.1	1.0	(D)	(D)	-	9.4	(D)	8.1	(D)	(D)	(D)	-
141	Dimension stone:													
	Establishments.....number..	10	10	10	-	10	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	14	14	1	-	1	-	12	-	12	-	1	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	2.0	2.0	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
144	Sand and gravel:													
	Establishments.....number..	47	47	1	-	1	-	31	-	26	5	2	13	-
	Employees.....1,000..	.4	.4	(D)	-	(D)	-	.3	-	(D)	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	6.7	6.7	(D)	-	(D)	-	5.9	-	(D)	(D)	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	9	9	7	1	6	-	2	-	2	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	(D)	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	1.0	1.0	(D)	(D)	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	12	12	4	1	3	-	8	-	8	-	-	-	-
	Employees.....1,000..	.1	.1	(Z)	(D)	(D)	-	.1	-	.1	-	-	-	-
	Value added in mining..mil.dol..	.8	.8	.4	(D)	(D)	-	.4	-	.4	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	648	858	Cost of supplies, total.....million dollars..	134.5	118.2
With 0 to 19 employees.....do....	553	775	Supplies used, minerals received for preparation, and purchased machinery.....do....	97.1	(NA)
With 20 to 99 employees.....do....	75	73	Cost of resales.....do....	.4	(NA)
With 100 or more employees.....do....	20	10	Purchased fuels consumed.....do....	4.4	(NA)
All employees (average for year).....1,000..	12.0	11.2	Electric energy:		
Payroll (all employees), total for year.....million dollars..	94.6	72.7	Quantity purchased.....million kw.-hrs..	664.4	(NA)
			Cost.....million dollars..	7.1	(NA)
			Generated less sold.....million kw.-hrs..	20.4	(NA)
			Contract work.....million dollars..	25.5	23.2
Production, development, and exploration workers:					
Average for the year.....1,000..	8.4	8.4	Value of shipments and receipts (including resales), total.....do....	339.1	335.8
March.....do....	8.2	(NA)	Value of resales.....do....	.7	(NA)
May.....do....	8.4	(NA)			
August.....do....	8.7	(NA)	Value added in mining.....do....	251.4	253.3
November.....do....	8.2	(NA)			
Man-hours.....millions..	16.4	16.2	Capital expenditures (except land and mineral rights), total.....do....	46.9	35.6
Wages.....million dollars..	57.2	48.3	Mineral development and exploration.....do....	20.2	13.4
			New structures and additions.....do....	7.0	22.3
Supplemental labor cost not included in payroll.....do..	10.9	(NA)	New machinery and equipment.....do....	17.9	
			Used plant and equipment.....do....	1.8	
Legally required expenditures, including Social Security contributions.....do..	6.5	(NA)	Mineral development and exploration expenditures, total.....do....	29.7	(NA)
Payments for voluntary programs.....do..	4.4	(NA)	Capitalized.....do....	20.2	13.4
			Expensed.....do....	9.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Colorado, total	648	95	12.0	94.6	8.4	16.4	57.2	251.4	134.5	339.1	46.9	11.2	253.3
	COUNTIES[2]													
	Arapahoe county, total	16	2	.2	1.5	.1	.2	.7	1.7	1.5	2.2	1.0	.1	.8
	Boulder county, total	26	3	.2	1.3	.2	.3	1.0	3.1	1.3	4.0	.4	.1	1.5
14	Nonmetallic minerals, except fuels	13	3	.2	1.1	.1	.3	.8	2.5	1.1	3.3	.3	.1	1.0
	Clear Creek county, total	4	3	.4	2.6	.3	.5	2.0	.5	(D)	2.3	(D)	(D)	(D)
10	Metal mining	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Denver county, total	145	22	2.1	23.0	.4	.7	2.7	5.5	4.3	6.4	3.4	1.8	12.7
10	Metal mining	15	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	121	21	2.0	21.5	.3	.6	2.4	4.6	3.9	5.2	3.3	(D)	(D)
131	Crude petroleum and natural gas	69	18	1.8	20.0	.2	.4	1.6	3.0	3.0	3.4	2.6	(D)	(D)
138	Oil and gas field services	51	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.2
	Eagle county, total	4	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fremont county	25	2	.2	1.0	.2	.3	.8	2.1	(D)	4.5	(D)	.3	3.5
	Garfield county, total	23	3	.4	3.1	.3	.6	2.3	15.4	13.5	27.3	1.7	(D)	(D)
10	Metal mining	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gunnison county, total	10	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	.9
12	Bituminous coal and lignite mining	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8
121	Bituminous coal and lignite mining	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8
	Jefferson county	22	1	.2	1.5	.1	.2	.6	1.7	.9	2.4	.2	.2	3.1
	Lake county, total	6	1	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	1	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium	1	1	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	La Plata county, total	34	2	.1	1.2	.1	.2	.9	2.1	9.0	10.9	.2	.3	3.5
13	Oil and gas extraction	23	2	.1	1.2	.1	.2	.8	2.0	8.9	10.7	.2	.2	2.8
	Las Animas county, total	6	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Logan county, total	57	1	.2	1.3	.2	.3	1.0	6.4	3.6	9.3	.7	.3	16.6
13	Oil and gas extraction	57	1	.2	1.3	.2	.3	1.0	6.4	3.6	9.3	.7	(D)	(D)
138	Oil and gas field services	25	-	.1	.6	.1	.2	.5	1.2	.6	1.5	.3	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Colorado-Continued													
	COUNTIES[2]--Continued													
	Mesa county, total	52	4	.5	3.6	.3	.6	2.0	4.8	9.2	13.0	1.0	.6	7.5
10	Metal mining	24	3	.4	2.6	.2	.4	1.3	2.8	7.9	10.0	.7	.3	5.4
109	Miscellaneous metal ores	19	3	.4	2.5	.2	.4	1.1	2.5	7.7	9.6	.6	.2	5.1
	Moffat county, total	31	5	.2	1.4	.2	.3	1.1	10.6	5.2	10.5	5.3	.3	11.2
13	Oil and gas extraction	26	4	.1	1.1	.1	.3	.8	9.8	4.8	9.3	5.3	(D)	(D)
	Montezuma county	25	2	.1	.7	.1	.1	.5	2.0	1.7	2.8	.9	.1	1.6
	Montrose county, total	46	3	.7	5.3	.6	1.2	4.2	21.6	7.3	25.5	3.4	.8	11.3
10	Metal mining	42	3	.7	5.1	.6	1.1	4.1	21.1	6.8	24.9	3.0	.8	9.9
109	Miscellaneous metal ores	36	3	.6	4.8	.5	1.0	3.7	20.5	6.3	23.8	2.9	.8	9.6
	Morgan county, total	45	2	.2	1.6	.1	.3	1.1	5.1	5.3	8.5	2.0	.3	11.8
13	Oil and gas extraction	43	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	16	2	.2	1.1	.1	.2	.8	1.0	.7	1.4	.3	(D)	(D)
	Ouray county, total	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Rio Blanco county, total	49	11	.6	4.7	.4	.9	3.3	56.9	17.6	65.8	8.7	.4	52.0
13	Oil and gas extraction	45	11	.6	4.6	.4	.9	3.3	56.9	17.6	65.7	8.7	.4	51.9
131	Crude petroleum and natural gas	19	3	.3	2.2	.1	.3	1.2	52.0	13.3	56.9	8.3	.2	49.1
138	Oil and gas field services	24	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Routt county, total	13	3	.1	1.2	.1	.3	1.2	5.0	2.0	6.5	.6	.1	2.7
12	Bituminous coal and lignite mining	7	3	.1	1.1	.1	.2	1.0	5.3	1.7	6.3	.6	(D)	(D)
121	Bituminous coal and lignite mining	7	3	.1	1.1	.1	.2	1.0	5.3	1.7	6.3	.6	(D)	(D)
	San Juan county, total	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washington county, total	40	1	.1	1.0	.1	.2	.8	7.7	3.2	10.2	.7	.2	11.3
13	Oil and gas extraction	40	1	.1	1.0	.1	.2	.8	7.7	3.2	10.2	.7	.2	11.3
	Weld county, total	26	4	.2	1.7	.2	.4	1.6	5.8	1.7	6.4	1.1	.4	8.5
12	Bituminous coal and lignite mining	5	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.3
121	Bituminous coal and lignite mining	5	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.3

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for other, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Colorado, total	648	158	-	70	327	93
0 to 4 employees	382	90	-	42	208	42
5 to 9 employees	82	23	-	6	30	23
10 to 19 employees	89	24	-	8	37	20
20 to 49 employees	59	7	-	8	36	8
50 to 99 employees	16	4	-	2	10	-
100 to 249 employees	13	5	-	3	5	-
250 to 499 employees	6	4	-	1	1	-
1,000 to 2,499 employees	1	1	-	-	-	-
Adams county, total	23	1	-	-	15	7
0 to 19 employees	22	1	-	-	15	6
20 to 99 employees	1	-	-	-	-	1
Arapahoe county, total	16	2	-	-	10	4
0 to 19 employees	14	1	-	-	9	4
20 to 99 employees	2	1	-	-	1	-
Archuleta county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Baca county, total	10	-	-	-	10	-
0 to 19 employees	8	-	-	-	8	-
20 to 99 employees	2	-	-	-	2	-
Bent county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Boulder county, total	26	4	-	1	8	13
0 to 19 employees	23	4	-	1	8	10
20 to 99 employees	3	-	-	-	-	3
Chaffee county, total	3	1	-	-	-	2
0 to 19 employees	2	1	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Clear Creek county, total	4	2	-	1	-	1
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	2	-	-	1	-	1
250 employees and over	1	1	-	-	-	-
Conejos county, total	-	-	-	-	-	-
0 to 19 employees	-	-	-	-	-	-
Costilla county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Delta county, total	6	1	-	4	1	-
0 to 19 employees	6	1	-	4	1	-
Denver county, total	146	15	-	6	122	3
0 to 19 employees	124	14	-	6	101	3
20 to 99 employees	18	1	-	-	17	-
100 to 249 employees	3	-	-	-	3	-
250 employees and over	1	-	-	-	1	-
Dolores county, total	2	2	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
Douglas county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Eagle county, total	4	3	-	1	-	-
0 to 19 employees	3	2	-	1	-	-
250 employees and over	1	1	-	-	-	-
Elbert county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
El Paso county, total	14	5	-	1	4	4
0 to 19 employees	13	5	-	1	4	3
20 to 99 employees	1	-	-	-	-	1
Fremont county, total	25	3	-	13	-	9
0 to 19 employees	23	2	-	12	-	9
20 to 99 employees	2	1	-	1	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Colorado--Continued						
Garfield county, total	23	4	-	3	12	4
0 to 19 employees	20	3	-	2	12	3
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	2	1	-	1	-	-
Gilpin county, total	3	2	-	-	1	-
0 to 19 employees	2	2	-	-	-	-
20 to 99 employees	1	-	-	-	1	-
Grand county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Gunnison county, total	10	4	-	5	1	-
0 to 19 employees	8	4	-	3	1	-
20 to 99 employees	1	-	-	1	-	-
100 to 249 employees	1	-	-	1	-	-
Hinsdale county, total	2	2	-	-	-	-
0 to 19 employees	2	2	-	-	-	-
Huerfano county, total	2	-	-	2	-	-
0 to 19 employees	2	-	-	2	-	-
Jackson county, total	4	-	-	-	4	-
0 to 19 employees	3	-	-	-	3	-
20 to 99 employees	1	-	-	-	1	-
Jefferson county, total	22	4	-	2	5	11
0 to 19 employees	21	3	-	2	5	11
20 to 99 employees	1	1	-	-	-	-
Kiowa county, total	8	-	-	-	8	-
0 to 19 employees	8	-	-	-	8	-
Lake county, total	6	3	-	1	2	-
0 to 19 employees	5	2	-	1	2	-
250 employees and over	1	1	-	-	-	-
La Plata county, total	34	3	-	8	23	-
0 to 19 employees	32	3	-	8	21	-
20 to 99 employees	2	-	-	-	2	-
Larimer county, total	19	-	-	-	9	10
0 to 19 employees	19	-	-	-	9	10
Las Animas county, total	6	-	-	4	-	2
0 to 19 employees	5	-	-	3	-	2
250 employees and over	1	-	-	1	-	-
Lincoln county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Logan county, total	57	-	-	-	57	-
0 to 19 employees	56	-	-	-	56	-
20 to 99 employees	1	-	-	-	1	-
Mesa county, total	52	24	-	6	18	4
0 to 19 employees	48	21	-	5	18	4
20 to 99 employees	2	1	-	1	-	-
100 to 249 employees	2	2	-	-	-	-
Mineral county, total	1	1	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
Moffat county, total	31	2	-	3	26	-
1 to 19 employees	26	2	-	2	22	-
20 to 99 employees	5	-	-	1	4	-
Montezuma county, total	25	6	-	-	18	1
1 to 19 employees	23	6	-	-	16	1
20 to 99 employees	2	-	-	-	2	-
Montrose county, total	46	42	-	1	2	1
1 to 19 employees	43	39	-	1	2	1
20 to 99 employees	2	2	-	-	-	-
250 employees and over	1	1	-	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Colorado--Continued						
Morgan county, total	45	-	-	-	43	2
1 to 19 employees	43	-	-	-	41	2
20 to 99 employees	2	-	-	-	2	-
Ouray county, total	4	4	-	-	-	-
1 to 19 employees	2	2	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Park county, total	4	3	-	-	1	-
1 to 19 employees	4	3	-	-	1	-
Phillips county, total	1	-	-	-	1	-
1 to 19 employees	1	-	-	-	1	-
Pitkin county, total	11	3	-	2	4	2
1 to 19 employees	10	3	-	1	4	2
20 to 99 employees	1	-	-	1	-	-
Prowers county, total	3	-	-	-	3	-
1 to 19 employees	3	-	-	-	3	-
Pueblo county, total	7	2	-	-	1	4
1 to 19 employees	7	2	-	-	1	4
Rio Blanco county, total	49	1	-	3	45	-
1 to 19 employees	38	1	-	3	34	-
20 to 99 employees	10	-	-	-	10	-
100 to 249 employees	1	-	-	-	1	-
Rio Grande county, total	1	1	-	-	-	-
1 to 19 employees	1	1	-	-	-	-
Routt county, total	13	1	-	7	5	-
1 to 19 employees	10	1	-	4	5	-
20 to 99 employees	3	-	-	3	-	-
San Juan county, total	3	2	-	-	1	-
1 to 19 employees	2	1	-	-	1	-
100 to 249 employees	1	1	-	-	-	-
San Miguel county, total	10	6	-	-	4	-
1 to 19 employees	9	6	-	-	3	-
20 to 99 employees	1	-	-	-	1	-
Sedgwick county, total	3	-	-	-	3	-
1 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	1	-
Summit county, total	2	1	-	1	-	-
1 to 19 employees	2	1	-	1	-	-
Teller county, total	1	-	-	-	-	1
1 to 19 employees	1	-	-	-	-	1
Washington county, total	40	-	-	-	40	-
1 to 19 employees	39	-	-	-	39	-
20 to 99 employees	1	-	-	-	1	-
Weld county, total	26	-	-	5	19	2
1 to 19 employees	22	-	-	1	19	2
20 to 99 employees	4	-	-	4	-	-
Yuma county, total	2	-	-	-	2	-
1 to 19 employees	2	-	-	-	2	-

Standard Notes: -Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

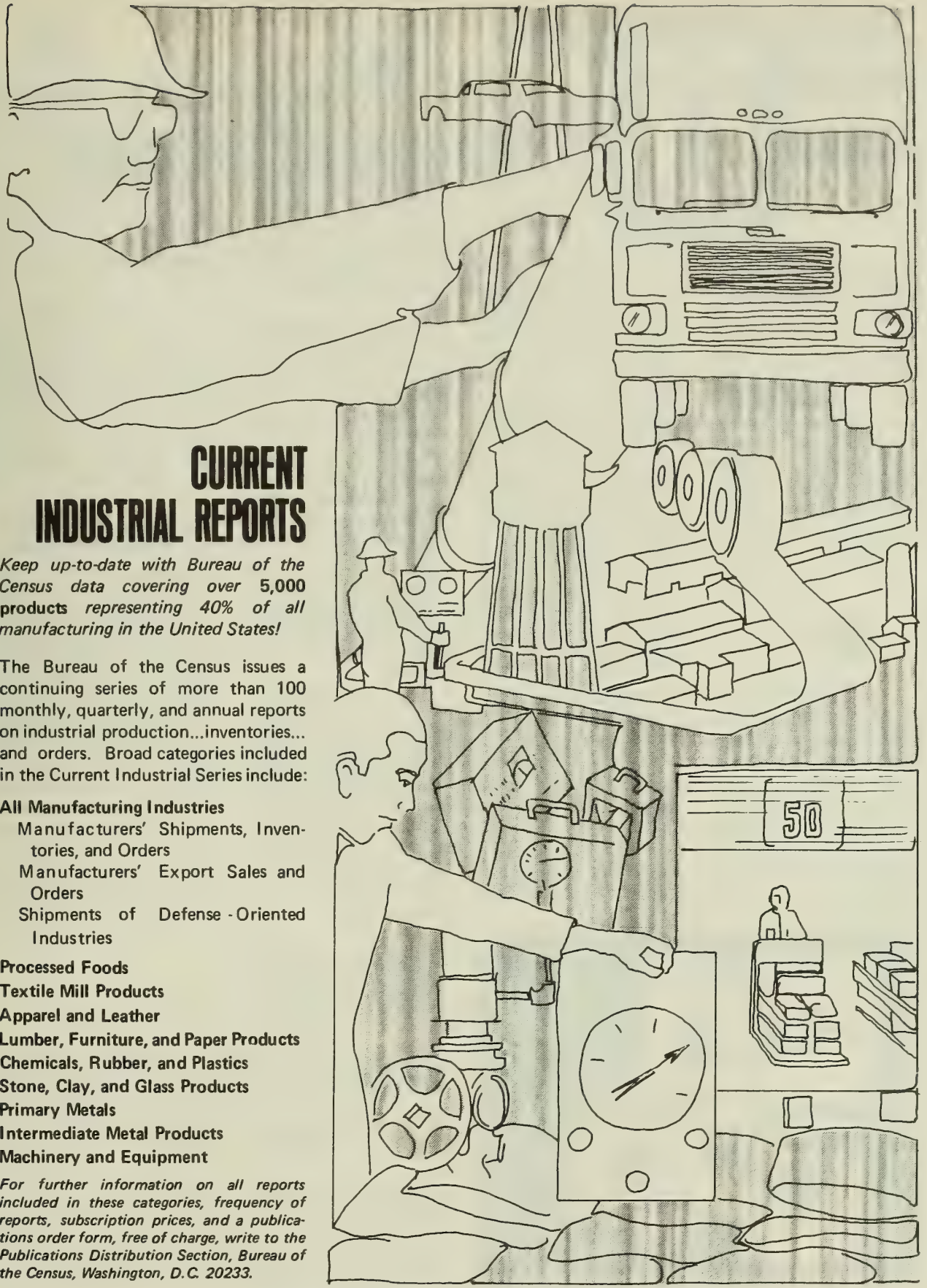
For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

CURRENT POPULATION REPORTS From the Bureau of the Census

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.

P-20 POPULATION CHARACTERISTICS. Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.

P-23 SPECIAL STUDIES. Infrequent reports on methods, concepts, or specialized data.

P-25 POPULATION ESTIMATES AND PROJECTIONS. Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES. Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.

P-27 FARM POPULATION. (Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES. Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

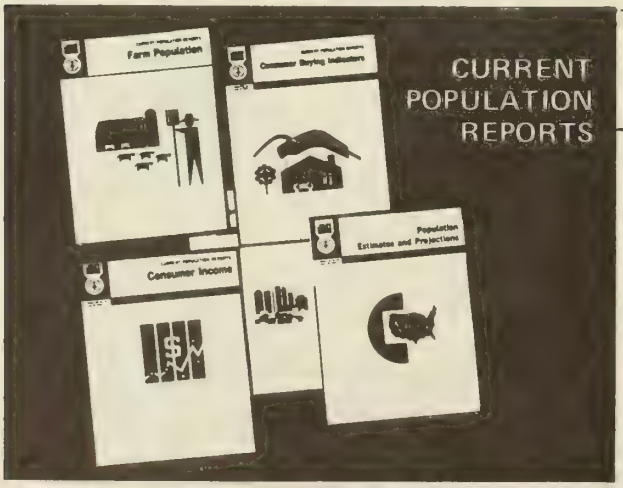
P-60 CONSUMER INCOME. Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

P-65 CONSUMER BUYING INDICATORS. Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.



Mail order form with payment to:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C., 20402
or any U.S. Dept. of Commerce Field Office

Please send_____subscription(s) of the **Current Population Report** Series as described above, at $14.00 per subscription. (8 Series). Add $3.50 for foreign mailing. C3.186: (Nos.)

Enclosed is $_____(check, money order, Supt. Docs. coupons) or charge Deposit Account No. _____

Name_____

Street Address_____

City, State, ZIP_____

Make check or money order payable to Superintendent of Documents _____

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-865

1967 CENSUS OF Mineral Industries



MIC67(2)-7

AREA STATISTICS

CONNECTICUT

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

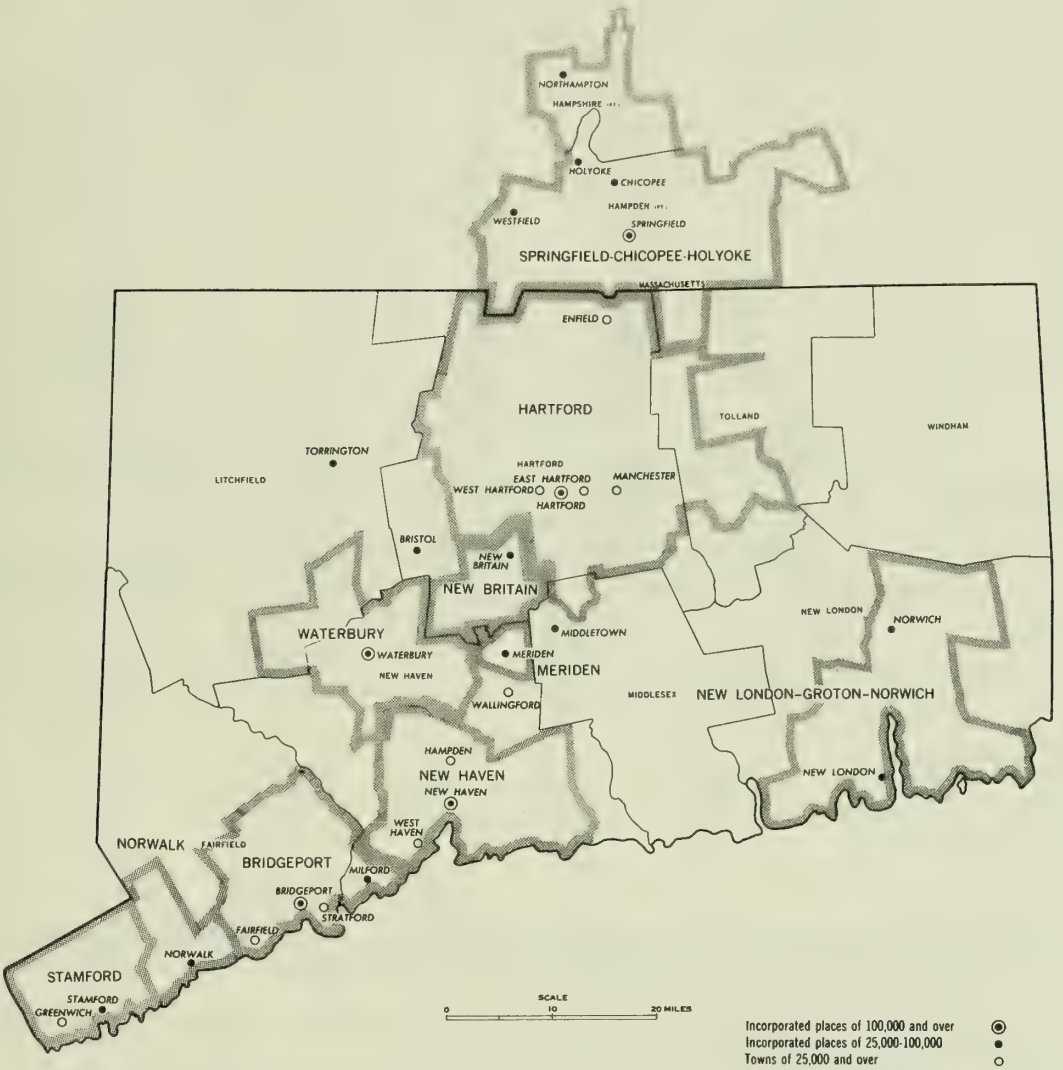
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



CONNECTICUT

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]69	9	.9	7.4	.6	1.3	4.4	13.1
1963	[1]80	15	.8	5.6	.7	1.5	4.2	
1958	81	12	.9	4.7	.7	1.5	3.3	9.4
1954	91	7	.8	3.4	.6	1.4	2.5	8.0
Including operations in manufactures:								
1967	78	9	(D)	(D)	(D)	(D)	(D)	(D)
1963	105	17	1.1	7.0	.9	2.0	5.6	16.4
1958	97	12	.9	4.9	.7	1.6	3.6	10.5
1954[2]	104	7	.8	3.7	.6	1.6	2.7	9.2
1939[3]	[4]63	(NA)	.7	.9	.6	1.4	.8	2.2
1929[5]	52	(NA)	.9	1.6	.8	(NA)	1.3	3.7
1919[6]	41	(NA)	.6	.8	.5	(NA)	.6	1.2
1909[6]	[4]71	(NA)	1.5	.8	[8]1.4	(NA)	.7	1.2
1902[7]	[4]90	(NA)	1.6	.9	[8]1.5	(NA)	.8	1.2

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]4.4	([10])	.5	([10])	16.8	1.2	(NA)
1963	[11]4.1	([11])	.4	1.3	14.9	1.9	.2
1958	3.6	(Z)	.4	.8	13.0	1.2	.2
1954	1.9	(Z)	.3	.6	9.7	1.1	.1
Including operations in manufactures:							
1967	[12](D)	(D)	(D)	[11] [13](D)	(D)	(D)	(NA)
1963	[12]4.8	([11])	[12].4	[13]1.3	21.0	(NA)	(NA)
1958	[12]3.7	(Z)	[12].4	[13].8	14.3	[13].2	[13].2
1954[2]	[12]2.0	(Z)	[12].3	[13].6	11.1	[13]1.1	[13].1
1939[3]	.7	(NA)	(Z)	(NA)	3.0	(NA)	.1
1929[5]	.5	(NA)	-	.3	4.2	(NA)	.2
1919[6]	.4	-	(Z)	(NA)	1.6	(NA)	[14].1
1909[6]	.2	-	(Z)	(NA)	1.4	(NA)	(NA)
1902[7]	.2	(NA)	-	(NA)	1.4	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $50 thousand and 50 employees.

[1] In 1967, for the first time, data for single unit establishments without paid employees were excluded from the Census. In 1963, there were 9 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes data for sand and gravel mining operations in manufacturing establishments.

[3] Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operations was $45 thousand; this value has been included in the value of shipments and in value added in mining. The corresponding value for sandstone is not available.

[4] Represents number of mines and quarries.

[5] Excludes data for common clay and shale and peat mining operations. There were 12 such mines in 1939, with products valued at between $63 thousand and $173 thousand.

[6] Excludes data for sand and gravel mining operations. There were 10 such establishments in 1929, with products valued at $383 thousand. For 1919 and 1902, excludes data for one nonproducing establishment. See also footnote 5.

[7] Includes data for lime plants producing lime valued at $204 thousand. See also footnotes 5 and 6.

[8] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication.

[10] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11] Figures for the cost of minerals received for preparation and for dimension stone in manufactures for purchased machinery installed are included with those for cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For 1963, see also footnote 3.

[13] Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[14] Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	69	9	.9	7.4	.6	1.3	4.4	13.1	4.9	16.8	1.2	.8	11.0
13	Oil and gas extraction	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1389	Oil and gas field services, n.e.c	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	65	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone	13	4	.3	2.8	.2	.5	2.0	6.3	2.0	7.7	.6	.3	4.1
1423	Crushed and broken granite	3	1	.1	.5	.1	.1	.4	1.1	.2	1.2	.1	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	7	2	.2	2.1	.1	.3	1.4	4.9	1.6	5.9	.6	.2	3.2
144	Sand and gravel	42	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	5.8
1442	Construction sand and gravel	41	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay and related minerals	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1456	Feldspar	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	9	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.4

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Connecticut:													
	Establishments.....number..	69	68	11	-	10	1	28	-	28	-	-	29	1
	Employees.....1,000..	.9	(D)	(D)	-	(D)	(D)	.4	-	.4	-	-	.5	(D)
	Value added in mining..mil.dol..	13.1	(D)	(D)	-	(D)	(D)	9.6	-	9.6	-	-	2.5	(D)
13	Oil and gas extraction:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
131	Crude petroleum and natural gas:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
138	Oil and gas field services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value adding in mining..mil.dol.	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	65	64	11	-	10	1	28	-	28	-	-	25	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	(D)	.4	-	.4	-	-	.3	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	(D)	9.6	-	9.6	-	-	2.4	(D)
141	Dimension stone:													
	Establishments.....number..	6	6	6	-	6	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	13	12	-	-	-	-	11	-	11	-	-	1	1
	Employees.....1,000..	.3	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	6.3	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	42	42	4	-	3	1	16	-	16	-	-	22	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	(D)	.2	-	.2	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	(D)	3.0	-	3.0	-	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963
Establishments, total.....number..	69	80
With 0 to 19 employees.....do....	60	65
With 20 to 99 employees.....do....	8	15
With 100 or more employees.....do....	1	-
All employees (average for year).....1,000..	.9	.8
Payroll (all employees), total for year.....million dollars..	7.4	5.6
Production, development, and exploration workers:		
Average for the year.....1,000..	.6	.7
March.....do....	.5	(NA)
May.....do....	.6	(NA)
August.....do....	.7	(NA)
November.....do....	.6	(NA)
Man-hours.....millions..	1.3	1.5
Wages.....million dollars..	4.4	4.2
Supplemental labor cost not included in payroll.....do..	.5	(NA)
Legally required expenditures, including Social Security contributions.....do..	.3	(NA)
Payments for voluntary programs.....do..	.2	(NA)
Cost of supplies, total.....million dollars..	4.9	5.9
Supplies used, minerals received for preparation, and purchased machinery.....do....	3.4	(NA)
Cost of resales.....do....	.1	(NA)
Purchased fuels consumed.....do....	.4	(NA)
Electric energy:		
Quantity purchased.....million kw.-hrs..	30.9	(NA)
Cost.....million dollars..	.5	(NA)
Generated less sold.....million kw.-hrs..	-	(NA)
Contract work.....million dollars..	.5	.4
Value of shipments and receipts (including resales), total.....do....	16.8	14.9
Value of resales.....do....		
Value added in mining.....do....	13.1	11.0
Capital expenditures (except land and mineral rights), total.....do....	1.2	1.9
Mineral development and exploration.....do....	(Z)	(Z)
New structures and additions.....do....	.4	1.9
New machinery and equipment.....do....	.7	
Used plant and equipment.....do....	.1	
Mineral development and exploration expenditures, total.....do....	.4	(NA)
Capitalized.....do....	(Z)	(Z)
Expensed.....do....	.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Connecticut, total.....	69	9	.9	7.4	.6	1.3	4.4	13.1	4.9	16.8	1.2	.8	11.0
	COUNTIES[2]													
	Fairfield County, total.....	14	1	.2	2.0	.1	.2	.4	1.0	.4	1.4	.1	.1	1.6
13	Oil and gas extraction.....	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services..	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Hartford County, total.....	14	1	.1	1.1	.1	.3	1.0	2.9	1.3	3.9	.3	.1	1.6
14	Nonmetallic minerals, except fuels.....	13	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.6
144	Sand and gravel.....	8	1	.1	.7	.1	.2	.6	1.6	.8	2.1	.2	.1	1.0
	New Haven County, total.....	15	3	.2	2.4	.2	.4	1.5	4.9	1.2	5.7	.5	.2	4.2
14	Nonmetallic minerals, except fuels.....	14	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.2
142	Crushed and broken stone....	6	3	.2	2.0	.1	.3	1.2	4.0	.9	4.5	.4	.1	2.7

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for their own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represent the number of reports received, while county establishment counts represent the number of reports that indicated operations in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Connecticut, total	69	-	-	-	4	65
1 to 4 employees	30	-	-	-	3	27
5 to 9 employees	12	-	-	-	-	12
10 to 19 employees	18	-	-	-	-	18
20 to 49 employees	5	-	-	-	-	5
50 to 99 employees	3	-	-	-	-	3
100 to 249 employees	1	-	-	-	1	-
Fairfield County, total	14	-	-	-	14	12
1 to 19 employees	13	-	-	-	13	12
100 to 249 employees	1	-	-	-	1	-
Hartford County, total	14	-	-	-	1	13
1 to 19 employees	13	-	-	-	1	12
20 to 99 employees	1	-	-	-	-	1
Litchfield County, total	5	-	-	-	-	5
1 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Middlesex County, total	5	-	-	-	-	5
1 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
New Haven County, total	15	-	-	-	1	14
1 to 19 employees	12	-	-	-	1	11
20 to 99 employees	3	-	-	-	-	3
New London County, total	5	-	-	-	-	5
1 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Tolland County, total	4	-	-	-	-	4
1 to 19 employees	4	-	-	-	-	4
Windham County, total	7	-	-	-	-	7
1 to 19 employees	6	-	-	-	-	6
20 to 99 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value-of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 431-995/1385

1967 CENSUS OF Mineral Industries



MIC67(2)-8

AREA STATISTICS

FLORIDA

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.


PENSACLA
ESCAMBIA
SANTA ROSA
OKALOOSA
WALTON
HOLMES
WASHINGTON
JACKSON
BAY
CALHOUN
LIBERTY
GULF
FRANKLIN
GADSDEN
WAKULLA
TALLAHASSEE
LEON
JEFFERSON
MADISON
TAYLOR
HAMILTON
SUWANNEE
LAFAYETTE
COLUMBIA
BAKER
NASSAU
DUVAL
JACKSONVILLE
UNION
BRADFORD
CLAY
ST JOHNS
GILCHRIST
ALACHUA
GAINESVILLE
DIXIE
PUTNAM
FLAGLER
LEVY
MARION
VOLUSIA
DAYTONA BEACH
CITRUS
SUMTER
LAKE
SEMINOLE
ORANGE
ORLANDO
TITUSVILLE
HERNANDO
PASCO
BREVARD
CLEARWATER
PINELLAS
HILLSBOROUGH
TAMPA
LAKELAND
POLK
OSCEOLA
TAMPA-ST. PETERSBURG
ST. PETERSBURG
INDIAN RIVER
FORT PIERCE
MANATEE
HARDEE
HIGHLANDS
OKEECHOBEE
ST LUCIE
SARASOTA
DE SOTO
MARTIN
CHARLOTTE
GLADES
WEST PALM BEACH
PALM BEACH
LEE
HENDRY
COLLIER
BROWARD
FORT LAUDERDALE
HOLLYWOOD
NORTH MIAMI
HIALEAH
MIAMI
MIAMI BEACH
CORAL GABLES
DADE
MONROE
KEY WEST
SCALE
0 10 20 30 40 50 MILES
FLORIDA
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]210	67	8.1	50.8	6.2	14.2	36.0	202.3
1963	[1]219	61	6.6	32.8	5.2	12.1	23.7	109.0
1958	206	69	6.7	29.1	5.5	11.7	22.0	82.7
1954	193	54	6.8	26.1	5.5	13.0	19.6	[2]67.4
Including operations in manufactures:								
1967	215	68	8.2	51.1	6.3	14.3	36.3	206.4
1963	259	64	6.7	33.6	5.3	12.5	24.5	114.5
1958	220	72	6.9	30.1	5.7	12.1	23.1	87.4
1954[3]	199	57	6.9	26.4	5.6	13.1	20.0	[2]68.7
1939[4]	[5]86	(NA)	3.5	3.2	3.1	6.0	2.4	8.1
1929[6]	66	(NA)	3.6	4.1	3.2	(NA)	3.2	10.1
1919[7]	36	(NA)	3.7	3.8	3.4	(NA)	3.1	5.3
1909[7]	36	(NA)	5.5	2.8	5.2	(NA)	2.4	6.7
1902[8]	[5]74	(NA)	3.4	1.3	[9]3.2	(NA)	1.1	2.3

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11]173.3	([11])	6.6	([11])	336.7	45.4	(NA)
1963	76.0	71.4	4.2	14.1	215.0	19.7	4.2
1958	29.6	38.7	4.4	9.6	[2]153.2	11.7	2.9
1954	24.8	32.3	5.0	11.1	[2]124.8	15.6	3.1
Including operations in manufactures:							
1967	[12]180.5	([12])	([12])	([12])	341.5	(NA)	(NA)
1963	[13]37.2	71.4	[13]4.2	[14]14.1	221.8	[14]19.7	[14]4.2
1958	[13]30.6	[13]38.7	[13]4.4	[14]9.6	159.0	[14]11.7	[14]2.9
1954[3]	[13]25.2	32.3	[13]5.0	[14]11.1	[2]126.6	[14]15.6	[14]3.1
1939[4]	3.0	(NA)	(Z)	(NA)	11.2	(NA)	1.0
1929[6]	3.9	(NA)	(Z)	.8	14.0	(NA)	[15]1.5
1919[7]	3.5	-	.1	(NA)	9.0	(NA)	1.9
1909[7]	2.0	-	.2	(NA)	8.8	(NA)	(NA)
1902[8]	.6	(NA)	(Z)	(NA)	2.9	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 33 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing limestone at such operations was $57 thousand; this value has been included in the value of shipments and value added in mining.

[5]Represents number of mines and quarries and, for mining services industries, number of operating companies.

[6]Excludes data for common clay and shale and peat operations and for one nonproducing limestone operation. In 1939, there were 4 such clay and peat mines, with products of the 3 clay operations valued at $25 thousand.

[7]Excludes data for sand and gravel mining operations and stone quarries operated as parts of cement and lime plants. In 1929, there were 9 such sand and gravel operations, with products valued at $490 thousand, and 2 such stone quarries. See also footnote 6. Also, excludes data for nonproducing phosphate rock operations: for 1919, one mine; and for 1909, 2 mines.

[8]Excludes data for sand, gravel, common clay, and shale mining operations. Includes data for lime plants producing lime valued at $38 thousand.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For all other years, represents net production and excludes this duplication.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work (and for 1958 the cost of minerals received for preparation) is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for stone, sand and gravel, and clay mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 7 percent of the total kw.-hr. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	210	67	8.1	50.8	6.2	14.2	36.0	202.3	179.9	336.7	45.4	6.6	109.0
10	Metal mining	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
109	Miscellaneous metal ores	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1093	Titanium ores	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
13	Oil and gas extraction	45	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
131	Crude petroleum and natural gas	19	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.6
1312	Crude petroleum	18	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
138	Oil and gas field services	25	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1381	Drilling oil and gas wells	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1382	Oil and gas exploration services	13	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	163	60	7.4	46.1	5.8	13.4	33.6	189.0	133.6	279.3	43.3	5.9	98.2
142	Crushed and broken stone	55	26	1.6	9.1	1.3	3.3	6.9	20.0	12.8	30.4	2.3	1.7	21.7
1422	Crushed and broken limestone	55	26	1.6	9.1	1.3	3.3	6.9	20.0	12.8	30.4	2.3	1.7	21.7
144	Sand and gravel	44	5	.4	2.2	.3	.7	1.7	6.0	3.4	8.4	1.0	.6	5.9
1442	Construction sand and gravel	44	5	.4	2.2	.3	.7	1.7	6.0	3.4	8.4	1.0	(D)	(D)
145	Clay and related minerals	5	3	.3	1.6	.3	.7	1.3	5.7	2.8	7.4	1.1	.3	3.8
1454	Fuller's earth	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	32	23	4.8	31.4	3.6	8.1	22.2	152.6	113.1	227.1	38.6	(NA)	(NA)
1475	Phosphate rock	31	23	4.8	31.4	3.6	8.1	22.2	152.6	113.1	227.1	38.6	(D)	(D)
1481	Nonmetallic minerals services	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	19	3	.2	1.3	.2	.4	1.1	4.0	1.3	5.1	.3	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	15	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	5	1	0.1	0.3	0.1	0.1	0.3	4.1	0.6	4.8	(NA)	0.2	5.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Florida:													
	Establishments.....number..	210	202	14	2	9	3	107	-	102	5	11	70	8
	Employees.....1,000..	8.1	8.1	.1	(D)	(D)	(D)	6.7	-	6.4	.2	.7	.6	(Z)
	Value added in mining..mil.dol..	202.3	204.2	4.1	(D)	(D)	(D)	158.8	-	153.4	5.4	37.7	3.5	-1.9
10	Metal mining:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
109	Miscellaneous metal ores:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	45	37	2	-	-	2	-	-	-	-	1	34	8
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	.3	(Z)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	1.7	-1.9
131	Crude petroleum and natural gas:													
	Establishments.....number..	20	12	2	-	-	2	-	-	-	-	-	10	8
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(Z)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	-1.9
1321	Natural gas liquids:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	25	25	-	-	-	-	-	-	-	-	-	25	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	163	163	12	2	9	1	105	-	100	5	10	36	-
	Employees.....1,000..	7.4	7.4	(D)	(D)	(D)	(D)	(D)	-	(D)	.2	(D)	.3	-
	Value added in mining..mil.dol..	189.0	189.0	(D)	(D)	(D)	(D)	(D)	-	(D)	5.4	(D)	1.8	-
141	Dimension stone:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	55	55	1	1	-	-	50	-	50	-	2	2	-
	Employees.....1,000..	1.6	1.6	(D)	(D)	-	-	1.4	-	1.4	-	(D)	(D)	-
	Value added in mining..mil.dol..	20.0	20.0	(D)	(D)	-	-	19.1	-	19.1	-	(D)	(D)	-
144	Sand and gravel:													
	Establishments.....number..	44	44	3	-	2	1	16	-	15	1	1	24	-
	Employees.....1,000..	.4	.4	(D)	-	(D)	(D)	.3	-	(D)	(D)	(D)	.1	-
	Value added in mining..mil.dol..	6.0	6.0	(D)	-	(D)	(D)	4.5	-	(D)	(D)	(D)	.9	-
145	Clay and related minerals:													
	Establishments.....number..	5	5	-	-	-	-	5	-	5	-	-	-	-
	Employees.....1,000..	.3	.3	-	-	-	-	.3	-	.3	-	-	-	-
	Value added in mining..mil.dol..	5.7	5.7	-	-	-	-	5.7	-	5.7	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	32	32	1	-	1	-	22	-	21	1	7	2	-
	Employees.....1,000..	4.8	4.8	(D)	-	(D)	-	(D)	-	4.1	(D)	(D)	(Z)	-
	Value added in mining..mil.dol..	152.6	152.6	(D)	-	(D)	-	(D)	-	115.7	(D)	(D)	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Florida--Continued													
1481	Nonmetallic minerals services:													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	19	19	7	1	6	-	11	-	8	3	-	1	-
	Employees.....1,000..	.2	.2	(Z)	(D)	(D)	-	(D)	-	(Z)	(D)	-	(D)	-
	Value added in mining..mil.dol..	4.0	4.0	.7	(D)	(D)	-	(D)	-	.6	(D)	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	210	219	Cost of supplies, total.....million dollars..	179.9	125.7
With 0 to 19 employees.....do....	143	158	Supplies used, minerals received for preparation, and purchased machinery.....do....	150.2	(NA)
With 20 to 99 employees.....do....	43	40	Cost of resales.....do....	2.5	(NA)
With 100 or more employees.....do....	24	21	Purchased fuels consumed.....do....	7.7	(NA)
All employees (average for year).....1,000..	8.1	6.6	Electric energy:		
			Quantity purchased.....million kw.-hrs..	1,858.2	(NA)
Payroll (all employees), total for year.....million dollars..	50.8	32.8	Cost.....million dollars..	12.8	(NA)
			Generated less sold..... million kw.-hrs..	2.4	(NA)
Production, development, and exploration workers:			Contract work..... million dollars..	6.6	4.2
Average for the year.....1,000..	6.2	5.2	Value of shipments and receipts (including resales), total.....do....	336.7	215.0
March.....do....	6.2	(NA)	Value of resales.....do....	2.6	(NA)
May.....do....	6.2	(NA)			
August.....do....	6.1	(NA)			
November.....do....	6.2	(NA)	Value added in mining.....do....	202.3	109.0
Man-hours.....millions..	14.2	12.1	Capital expenditures (except land and mineral rights), total.....do....	45.4	19.7
Wages.....million dollars..	36.0	23.7	Mineral development and exploration.....do....	4.4	.4
			New structures and additions.....do....	4.7	19.3
Supplemental labor cost not included in payroll.....do..	4.4	(NA)	New machinery and equipment.....do....	35.1	
			Used plant and equipment.....do....	1.2	
Legally required expenditures, including Social Security contributions.....do..	2.1	(NA)	Mineral development and exploration expenditures, total.....do....	9.1	(NA)
Payments for voluntary programs.....do..	2.3	(NA)	Capitalized.....do....	4.4	.4
			Expensed.....do....	4.7	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Florida, total	210	67	8.1	50.8	6.2	14.2	36.0	202.3	179.9	336.7	45.4	6.6	109.0
	COUNTIES[2]													
	Alachua county, total	6	3	.1	.5	.1	.2	.4	1.3	.5	1.7	.1	.1	.8
14	Nonmetallic minerals, except fuels	6	3	.1	.5	.1	.2	.4	1.3	.5	1.7	.1	.1	.8
	Broward county, total	17	4	.2	.9	.1	.3	.8	2.7	2.2	4.7	.3	.2	3.0
14	Nonmetallic minerals, except fuels	14	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	9	4	.1	.8	.1	.3	.6	2.4	1.9	4.1	.2	.2	2.6
	Clay county, total	4	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Dade county, total	22	5	.5	3.6	.3	.8	1.9	6.2	4.3	10.0	.5	.5	4.6
13	Oil and gas extraction	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	17	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	10	3	.3	1.8	.2	.6	1.3	4.2	3.8	7.7	.3	.3	3.3
	Gadsden county, total	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.1
14	Nonmetallic minerals, except fuels	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.1
145	Clay and related minerals	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hamilton county, total	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hernando county, total	5	4	.4	2.4	.4	1.1	2.0	5.0	2.6	6.9	.7	.5	5.9
14	Nonmetallic minerals, except fuels	5	4	.4	2.4	.4	1.1	2.0	5.0	2.6	6.9	.7	.5	5.9
142	Crushed and broken stone	5	4	.4	2.4	.4	1.1	2.0	5.0	2.6	6.9	.7	.5	5.9
	Hillsborough county, total	9	4	.5	3.1	.4	.9	2.6	14.3	7.2	21.2	.4	(D)	(D)
14	Nonmetallic minerals, except fuels	8	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	5	4	.5	3.0	.4	.9	2.5	14.2	7.1	21.0	.4	(D)	(D)
	Marion county, total	13	5	.3	1.4	.2	.3	.6	2.1	1.1	3.0	.2	.2	2.7
14	Nonmetallic minerals, except fuels	13	5	.3	1.4	.2	.3	.6	2.1	1.1	3.0	.2	.2	2.7
142	Crushed and broken stone	8	5	.2	1.2	.1	.3	.5	1.5	1.0	2.3	.2	(D)	(D)
	Polk county, total	32	21	4.1	26.6	3.0	6.9	18.5	130.0	101.6	198.8	32.9	3.0	60.2
14	Nonmetallic minerals, except fuels	30	21	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.9	60.2
144	Sand and gravel	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	20	18	3.9	25.7	2.9	6.6	18.0	128.4	100.3	196.3	32.4	2.7	58.5

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Florida--Continued													
	COUNTIES[2]--Continued													
	Sumter county, total.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Suwannee county, total.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Florida, total	210	2	-	-	45	163
0 to 4 employees	88	-	-	-	32	56
5 to 9 employees	37	-	-	-	7	30
10 to 19 employees	18	-	-	-	1	17
20 to 49 employees	29	-	-	-	4	25
50 to 99 employees	14	-	-	-	-	14
100 to 249 employees	18	2	-	-	1	15
250 to 499 employees	4	-	-	-	-	4
500 to 999 employees	2	-	-	-	-	2
Alachua county, total	6	-	-	-	-	6
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	3
Bay county, total	4	-	-	-	2	2
0 to 19 employees	4	-	-	-	2	2
Bradford county, total	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	1	-
Brevard county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Broward county, total	17	-	-	-	3	14
0 to 19 employees	13	-	-	-	3	10
20 to 99 employees	4	-	-	-	-	4
Calhoun county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Charlotte county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Citrus county, total	7	-	-	-	1	6
0 to 19 employees	6	-	-	-	1	5
20 to 99 employees	1	-	-	-	-	1
Clay county, total	4	2	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	2	2	-	-	-	-
Collier county, total	7	-	-	-	7	-
0 to 19 employees	6	-	-	-	6	-
20 to 99 employees	1	-	-	-	1	-
Dade county, total	22	-	-	-	5	17
0 to 19 employees	17	-	-	-	4	13
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	2	-	-	-	1	1
De Soto county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Duval county, total	5	-	-	-	1	4
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	2	-	-	-	-	2
Escambia county, total	4	-	-	-	2	2
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	2	-	-	-	-	2
Gadsden county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Glades county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hamilton county, total	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Hardee county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Hendry county, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Florida--Continued						
Hernando county, total	5	-	-	-	-	5
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	2	-	-	-	-	2
Hillsborough county, total	9	-	-	-	1	8
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	3	-	-	-	-	3
Jackson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lafayette county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lake county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Lee county, total	5	-	-	-	1	4
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	1	-	-	-	-	1
Leon county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Levy county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Manatee county, total	6	-	-	-	1	5
0 to 19 employees	6	-	-	-	1	5
Marion county, total	13	-	-	-	-	13
0 to 19 employees	8	-	-	-	-	8
20 to 99 employees	5	-	-	-	-	5
Okaloosa county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Orange county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Palm Beach county, total	8	-	-	-	3	5
0 to 19 employees	8	-	-	-	3	5
Pinellas county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Polk county, total	32	-	-	-	2	30
0 to 19 employees	11	-	-	-	2	9
20 to 99 employees	9	-	-	-	-	9
100 to 249 employees	7	-	-	-	-	7
250 employees and over	5	-	-	-	-	5
Putnam county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
St Lucie county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Santa Rosa county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Sarasota county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Sumter county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Suwannee county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Taylor county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Florida--Continued						
Volusia county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Walton county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Washington county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Offshore	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment; withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-864

1967 CENSUS OF Mineral Industries



MIC67(2)-9

AREA STATISTICS

GEORGIA

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	9
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

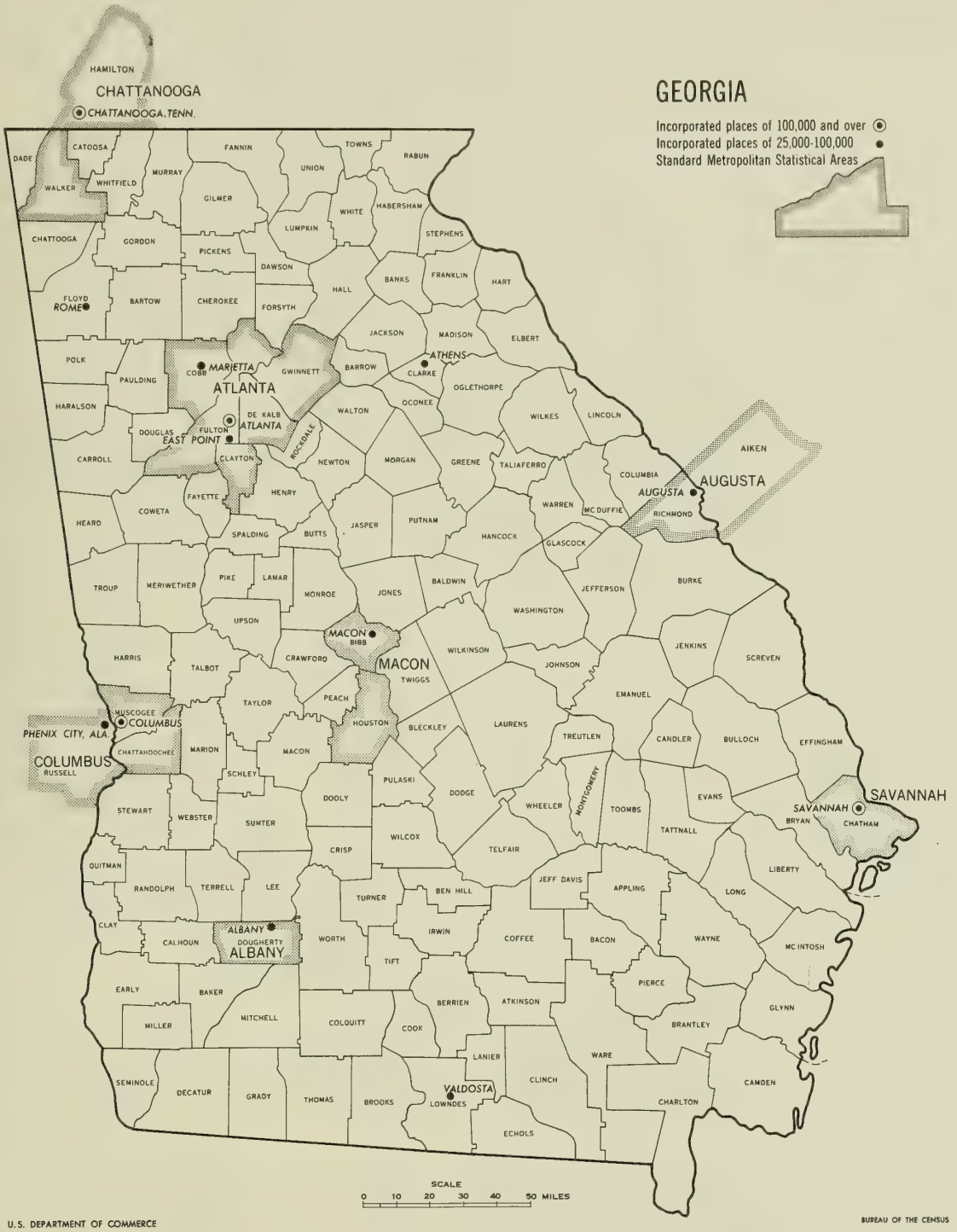

GEORGIA
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
HAMILTON
CHATTANOOGA
CHATTANOOGA, TENN.
DADE
CATOOSA
WALKER
WHITFIELD
MURRAY
FANNIN
UNION
TOWNS
RABUN
GILMER
WHITE
HABERSHAM
STEPHENS
LUMPKIN
CHATTOOGA
GORDON
PICKENS
DAWSON
HALL
BANKS
FRANKLIN
HART
FLOYD
ROME
BARTOW
CHEROKEE
FORSYTH
JACKSON
MADISON
ELBERT
POLK
PAULDING
COBB
MARIETTA
GWINNETT
BARROW
ATHENS
CLARKE
OGLETHORPE
ATLANTA
HARALSON
DE KALB
ATLANTA
WALTON
OCONEE
WILKES
LINCOLN
DOUGLAS
FULTON
EAST POINT
ROCKDALE
CARROLL
CLAYTON
NEWTON
MORGAN
GREENE
TALIAFERRO
COLUMBIA
AUGUSTA
AIKEN
FAYETTE
HENRY
WARREN
MC DUFFIE
RICHMOND
COWETA
HEARD
SPALDING
BUTTS
JASPER
PUTNAM
HANCOCK
GLASCOCK
TROUP
MERIWETHER
PIKE
LAMAR
MONROE
JONES
BALDWIN
JEFFERSON
BURKE
UPSON
WASHINGTON
MACON
BIBB
HARRIS
TALBOT
CRAWFORD
WILKINSON
JOHNSON
JENKINS
SCREVEN
TWIGGS
EMANUEL
TAYLOR
PEACH
MUSCOGEE
COLUMBUS
HOUSTON
BLECKLEY
LAURENS
TREUTLEN
CANDLER
BULLOCH
EFFINGHAM
PHENIX CITY, ALA.
CHATTAHOOCHEE
MARION
MACON
SCHLEY
COLUMBUS
RUSSELL
PULASKI
DODGE
WHEELER
MONTGOMERY
TOOMBS
EVANS
SAVANNAH
BRYAN
CHATHAM
STEWART
WEBSTER
SUMTER
DOOLY
WILCOX
TELFAIR
TATTNALL
CRISP
QUITMAN
RANDOLPH
TERRELL
LEE
TURNER
BEN HILL
JEFF DAVIS
APPLING
LIBERTY
LONG
CLAY
CALHOUN
ALBANY
DOUGHERTY
ALBANY
WORTH
IRWIN
COFFEE
BACON
WAYNE
MC INTOSH
TIFT
PIERCE
EARLY
BAKER
BERRIEN
ATKINSON
GLYNN
MILLER
MITCHELL
COLQUITT
COOK
BRANTLEY
LANIER
WARE
SEMINOLE
DECATUR
GRADY
THOMAS
BROOKS
VALDOSTA
LOWNDES
CLINCH
CHARLTON
CAMDEN
ECHOLS
SCALE
0 10 20 30 40 50 MILES
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]159	66	6.2	35.1	5.2	11.8	27.6	106.4
1963	[1]166	63	5.7	27.1	4.9	10.7	22.2	75.8
1958	173	58	5.2	19.6	4.5	9.7	15.6	52.0
1954	192	47	4.4	13.3	3.9	8.8	11.0	32.7
Including operations in manufactures:								
1967	189	80	7.5	40.8	6.4	14.1	32.6	117.0
1963	218	77	7.0	32.3	6.7	13.0	26.6	83.9
1958	202	70	6.2	22.7	5.4	11.4	18.3	58.0
1954[2]	220	58	5.3	15.7	4.8	10.5	13.0	37.3
1939[3]	[4]110	(NA)	3.9	2.8	3.7	7.4	2.3	5.9
1929[5]	82	(NA)	4.0	3.6	3.8	(NA)	3.0	7.5
1919[6]	74	(NA)	2.6	2.4	2.4	(NA)	2.0	3.1
1909[6]	94	(NA)	3.6	1.5	3.4	(NA)	1.3	2.5
1902[7]	[4]158	(NA)	3.2	1.3	[8]2.9	(NA)	1.1	2.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]56.4	([10])	3.6	([10])	145.8	20.6	(NA)
1963	30.1	1.2	1.4	7.7	106.7	9.5	3.2
1958	21.5	.9	1.1	7.0	74.7	7.8	1.9
1954	11.2	.6	1.3	4.2	43.4	6.6	1.3
Including operations in manufactures:							
1967	[11]63.8	([11])	([11])	([11])	159.9	(NA)	(NA)
1963	[12]34.1	2.0	[12]1.5	[13]8.1	119.7	[13]9.9	[13]3.2
1958	[12]23.3	[12].9	[12]1.1	[13]7.3	82.5	[13]8.1	[13]1.9
1954[2]	[12]12.2	.6	[12]1.3	[13]4.3	49.1	[13]6.7	[13]1.3
1939[3]	2.2	(NA)	.1	(NA)	8.2	(NA)	.8
1929[5]	1.8	(NA)	.3	.2	9.6	(NA)	1.0
1919[6]	.9	(Z)	(Z)	(NA)	4.1	(NA)	[14].5
1909[6]	.4	-	(Z)	(NA)	2.9	(NA)	(NA)
1902[7]	.6	(NA)	.1	(NA)	3.1	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 16 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Excludesdata for dimension stone dressing plants operated in conjunction with quarries and for one nonproducing bauxite mine.

[4]Represents number of mines and quarries and, for mining services industries, number of operating companies.

[5]Excludes data for common clay and shale mining operations. In 1939, there were 11 such mines with products valued at $168 thousand.

[6]Excludes data for common sand and gravel mining operation, limestone quarries operated as parts of cement and lime plants and for nonproducing establishments. In 1929, there were 5 such sand and gravel establishments with products valued at $172 thousand, and 3 such limestone quarries. See also footnote 5.

[7]Excludes data for sand, gravel, common clay, and shale mining operations. Includes data for 2 cement plants and for lime plants producing lime valued at $72 thousand.

[8]Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. Also for 1958, the cost of minerals received for preparation at dimension stone operations in manufacturing industries is included with supplies.

[13]Excludes data for crushed and broken stones, sand and gravel, and clay mining operations in manufacturing establishments.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hr. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	159	66	6.2	35.1	5.2	11.8	27.6	106.4	60.0	145.8	20.6	5.7	75.8
10	Metal mining	16	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.4
1011	Iron ores	10	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1093	Titanium ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	141	64	6.0	33.9	5.0	11.5	26.7	102.7	58.5	141.0	20.3	5.5	74.4
141	Dimension stone	11	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.6
1413	Dimension granite	7	-	.1	.3	.1	.1	.3	.5	.2	.7	.1	.1	.5
142	Crushed and broken stone	40	34	2.0	11.0	1.7	4.2	8.9	32.9	18.3	45.3	5.8	1.8	23.2
1422	Crushed and broken limestone	10	7	.3	2.1	.3	.8	1.6	5.6	3.3	8.0	.9	.3	4.1
1423	Crushed and broken granite	23	21	1.2	6.2	1.1	2.5	5.2	20.5	11.3	28.0	3.7	1.0	12.7
1429	Crushed and broken stone, n.e.c.	7	6	.5	2.6	.4	.9	2.1	6.8	3.7	9.3	1.2	.5	6.4
144	Sand and gravel	36	3	.3	1.3	.3	.6	1.1	3.8	1.7	5.1	.4	.4	3.0
1442	Construction sand and gravel	34	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1443	Glass sand	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	37	23	3.4	19.9	2.7	6.0	15.3	60.6	35.8	83.1	13.4	3.0	44.4
1454	Fuller's earth	7	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1455	Kaolin and ball clay	27	15	2.5	16.1	2.0	4.6	12.2	51.0	(D)	67.8	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer minerals	6	2	.1	.9	.1	.3	.7	3.4	1.9	4.8	.5	(D)	(D)
1472	Barite	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	9	2	.1	.4	.1	.2	.3	1.2	.6	1.7	.1	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	30	14	1.3	5.7	1.2	2.3	5.0	10.6	3.8	14.1	[2]0.4	1.3	8.1
1411	Dimension stone	17	12	1.1	5.2	1.0	2.1	4.5	8.0	3.3	10.9	0.4	1.2	6.9

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2]Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Georgia:													
	Establishments.....number..	159	153	36	-	36	-	88	5	82	1	3	26	6
	Employees.....1,000..	6.2	6.2	.2	-	.2	-	5.7	.4	5.4	(D)	(D)	(D)	(Z)
	Value added in mining..mil. dol..	106.4	106.5	2.5	-	2.5	-	100.6	6.0	94.6	(D)	(D)	(D)	(Z)
10	Metal mining:													
	Establishments.....number..	16	15	10	-	10	-	3	-	3	-	1	1	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
	Value added in mining..mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	10	9	7	-	7	-	2	-	2	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining..mil. dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)
1051	Bauxite and other aluminum ores:													
	Establishments.....number..	4	4	3	-	3	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
	Value added in mining..mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil. dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	2	1	-	-	-	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil. dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	141	137	26	-	26	-	85	5	79	1	2	24	4
	Employees.....1,000..	6.0	(D)	(D)	-	(D)	-	(D)	.4	5.2	(D)	(D)	(D)	(D)
	Value added in mining..mil. dol..	102.7	(D)	(D)	-	(D)	-	(D)	6.0	91.9	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	11	11	11	-	11	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil. dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	40	40	-	-	-	-	37	3	34	-	1	2	-
	Employees.....1,000..	2.0	2.0	-	-	-	-	(D)	(D)	1.6	-	(D)	(D)	-
	Value added in mining..mil. dol..	32.9	32.9	-	-	-	-	(D)	(D)	25.9	-	(D)	(D)	-
144	Sand and gravel:													
	Establishments.....number..	36	36	3	-	3	-	15	-	14	1	-	18	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	(D)	-	.2	(D)	-	.1	-
	Value added in mining..mil. dol..	3.8	3.8	(D)	-	(D)	-	(D)	-	2.8	(D)	-	.7	-
145	Clay and related minerals:													
	Establishments.....number..	37	33	7	-	7	-	25	-	25	-	-	1	4
	Employees.....1,000..	3.4	(D)	.1	-	.1	-	3.3	-	3.3	-	-	(D)	(D)
	Value added in mining..mil. dol..	60.6	(D)	.6	-	.6	-	60.1	-	60.1	-	-	(D)	(D)
147	Chemical and fertilizer minerals:													
	Establishments.....number..	6	6	1	-	1	-	3	-	3	-	1	1	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil. dol..	3.4	3.4	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Georgia--Continued													
14	Nonmetallic minerals, except fuels--Continued													
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil. dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	9	9	4	-	4	-	5	2	3	-	-	-	-
	Employees.....1,000..	.1	.1	(Z)	-	(Z)	-	.1	(D)	(D)	-	-	-	-
	Value added in mining..mil. dol..	1.2	1.2	.1	-	.1	-	1.1	(D)	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	159	166	Cost of supplies, total.....million dollars..	60.0	40.4
With 0 to 19 employees.....do....	93	103	Supplies used, minerals received for preparation, and purchased machinery.....do....	45.1	(NA)
With 20 to 99 employees.....do....	56	54	Cost of resales.....do....	1.2	(NA)
With 100 or more employees.....do....	10	9	Purchased fuels consumed.....do....	5.7	(NA)
All employees (average for year).....1,000..	6.2	5.7	Electric energy:		
Payroll (all employees), total for year.....million dollars..	35.1	27.1	Quantity purchased.....million kw.-hrs..	397.8	(NA)
			Cost.....million dollars..	4.4	(NA)
			Generated less sold.....million kw.-hrs..	1.8	(NA)
			Contract work.....million dollars..	3.6	1.4
Production, development, and exploration workers:					
Average for the year.....1,000..	5.2	4.9	Value of shipments and receipts (including resales), total.....do....	145.8	106.7
March.....do....	5.1	(NA)	Value of resales.....do....	1.4	(NA)
May.....do....	5.2	(NA)			
August.....do....	5.3	(NA)			
November.....do....	5.2	(NA)	Value added in mining.....do....	106.4	75.8
Man-hours.....millions..	11.8	10.7	Capital expenditures (except land and mineral rights), total.....do....	20.6	9.5
Wages.....million dollars..	27.6	25.2	Mineral development and exploration.....do....	.5	.6
			New structures and additions.....do....	1.2	8.9
Supplemental labor cost not included in payroll.....do..	3.8	(NA)	New machinery and equipment.....do....	18.4	
			Used plant and equipment.....do....	.5	
Legally required expenditures, including Social Security contributions.....do..	1.9	(NA)	Mineral development and exploration expenditures, total.....do....	1.4	(NA)
Payments for voluntary programs.....do..	1.9	(NA)	Capitalized.....do....	.5	.6
			Expensed.....do....	.9	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Georgia, total	159	66	6.2	35.1	5.2	11.8	27.6	106.4	60.0	145.8	20.6	5.7	75.8
	COUNTIES[2]													
	Bartow county, total	11	5	.3	1.8	.2	.5	1.4	5.1	2.6	6.9	.8	.3	4.5
14	Nonmetallic minerals, except fuels	8	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.2
142	Crushed and broken stone	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.1
147	Chemical and fertilizer minerals	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Bibb county, total	7	4	.2	.8	.1	.3	.5	2.0	.8	2.7	.1	(D)	(D)
14	Nonmetallic minerals, except fuels	7	4	.2	.8	.1	.3	.5	2.0	.8	2.7	.1	(D)	(D)
145	Clay and related minerals	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Charlton county, total	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Clayton county, total	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Decatur county, total	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	De Kalb county, total	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fulton county, total	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gilmer county, total	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jefferson county, total	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jones county, total	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Pickens county, total	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Georgia--Continued													
	COUNTIES[2]--Continued													
	Richmond county, total.....	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Thomas county, total.....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Twiggs county, total.....	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals....	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washington county, total.....	7	5	.3	2.4	.3	.7	1.9	11.1	4.3	13.8	1.5	.4	7.4
14	Nonmetallic minerals, except fuels.....	7	5	.3	2.4	.3	.7	1.9	11.1	4.3	13.8	1.5	.4	7.4
145	Clay and related minerals....	7	5	.3	2.4	.3	.7	1.9	11.1	4.3	13.8	1.5	.4	7.4
	Wilkinson county, total.....	6	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	6	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals....	6	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Georgia, total	159	16	-	-	2	141
0 to 4 employees	46	7	-	-	2	37
5 to 9 employees	26	4	-	-	-	22
10 to 19 employees	21	3	-	-	-	18
20 to 49 employees	36	1	-	-	-	35
50 to 99 employees	20	-	-	-	-	20
100 to 249 employees	5	1	-	-	-	4
250 to 499 employees	3	-	-	-	-	3
500 to 999 employees	2	-	-	-	-	2
Baldwin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Bartow county, total	11	3	-	-	-	8
0 to 19 employees	6	3	-	-	-	3
20 to 99 employees	5	-	-	-	-	5
Bibb county, total	7	-	-	-	-	7
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	4	-	-	-	-	4
Calhoun county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Charlton county, total	1	1	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Chatham county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cherokee county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Clarke county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Clayton county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Cobb county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Coffee county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Colquitt county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Crawford county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Decatur county, total	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
De Kalb county, total	4	-	-	-	-	4
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Dougherty county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Douglas county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Effingham county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Elbert county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Fannin county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Fayette county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Georgia--Continued						
Floyd county, total	3	1	-	-	-	2
0 to 19 employees	2	1	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Franklin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Fulton county, total	6	-	-	-	-	6
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	2	-	-	-	-	2
Gilmer county, total	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Glascock county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Glynn county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Gordon county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Grady county, total	3	2	-	-	-	1
0 to 19 employees	2	2	-	-	-	-
20 to 99 employees	1	-	-	-	-	1
Greene county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Gwinnett county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Hall county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Hancock county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Hart county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Henry county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Houston county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Jasper county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Jefferson county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
Jones county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Laurens county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lee county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Long county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lowndes county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Montgomery county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Murray county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Georgia--Continued						
Muscogee county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Oglethorpe county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Pickens county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Polk county, total	2	1	-	-	-	1
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	1	-	-	-	-	1
Rabun county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Richmond county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Rockdale county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Screven county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Spalding county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Stewart county, total	6	6	-	-	-	-
0 to 19 employees	5	5	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
Sumter county, total	4	2	-	-	-	2
0 to 19 employees	4	2	-	-	-	2
Talbot county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Taylor county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Telfair county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Thomas county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Twiggs county, total	2	-	-	-	-	2
250 employees and over	2	-	-	-	-	2
Upson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Walker county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Walton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Ware county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Warren county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Washington county, total	7	-	-	-	-	7
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Georgia--Continued						
Whitfield county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wilkes county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wilkinson county, total	6	-	-	-	-	6
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
250 employees and over	2	-	-	-	-	2
Offshore, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

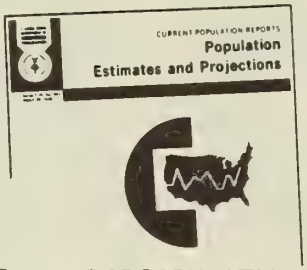
For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

CURRENT POPULATION REPORTS

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.





P-20 POPULATION CHARACTERISTICS.

Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.

P-23 SPECIAL STUDIES.

Infrequent reports on methods, concepts, or specialized data.

P-25 POPULATION ESTIMATES AND PROJECTIONS.

Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES.

Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.

P-27 FARM POPULATION.

(Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES.

Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

P-60 CONSUMER INCOME.

Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

P-65 CONSUMER BUYING INDICATORS.

Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

C3.186: (Nos.)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

From the Bureau of the Census

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-873

1967 CENSUS OF Mineral Industries



MIC67(2)-10

AREA STATISTICS

HAWAII

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	5
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	6
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]12	3	.2	1.6	.2	.4	1.3	5.0
1963	[1]44	4	.3	1.7	.2	.6	1.5	4.9
1958	20	8	.4	1.7	.4	.7	1.4	4.6
1954	-	-	-	-	-	-	-	-
Including operations in manufactures:								
1967	18	5	(D)	(D)	(D)	(D)	(D)	(D)
1963	49	4	.3	1.8	.3	.6	1.6	5.7
1958	24	8	.4	1.8	.4	.8	1.5	4.9
1954[2]	13	2	.2	.6	.2	.3	.5	1.3
1939	-	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-	-
1919	5	(NA)	.2	.1	.1	(NA)	.1	.2
1909	[3]6	(NA)	(Z)	(Z)	(Z)	(NA)	(Z)	(Z)

Kind of operation and year	Selected expenses				Value of shipments and receipts[4] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	2.2	([5])	.1	([5])	5.5	1.8	(NA)
1963	1.6	-	.2	.3	6.5	.5	(Z)
1958	1.2	-	.1	.7	5.8	.7	.1
1954	-	-	-	-	-	-	-
Including operations in manufactures:							
1967	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1963	[6]1.8	-	[6].2	[7].3	7.5	[7].5	[7](Z)
1958	[6]1.2	-	[6].1	[7].7	6.2	[7].7	[7].1
1954[2]	[6].3	-	[6].1	[7].2	1.8	[7].2	[7](Z)
1939	-	-	-	-	-	-	-
1929	-	-	-	-	-	-	-
1919	[6](Z)	-	-	(NA)	.3	(NA)	(NA)
1909	(Z)	-	-	(NA)	(Z)	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 16 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for any sand and gravel mining operations in manufacturing establishments.

[3]Represents number of mines and quarries.

[4]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment.

[5]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[6]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[7]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	12	3	.2	1.6	.2	.4	1.3	5.0	2.3	5.5	1.8	.3	4.9
14	Nonmetallic minerals, except fuels	12	3	.2	1.6	.2	.4	1.3	5.0	2.3	5.5	1.8	.3	4.9
142	Crushed and broken stone	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.1
1429	Crushed and broken stone, n.e.c.	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.0

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	6	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.8

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Hawaii:													
	Establishments.....number..	12	12	4	-	4	-	7	-	7	-	1	-	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	.2	-	.2	-	(D)	-	-
	Value added in mining.mil.dol..	5.0	5.0	(D)	-	(D)	-	4.9	-	4.9	-	(D)	-	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	12	12	4	-	4	-	7	-	7	-	1	-	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	.2	-	.2	-	(D)	-	-
	Value added in mining.mil.dol..	5.0	5.0	(D)	-	(D)	-	4.9	-	4.9	-	(D)	-	-
141	Dimension stone:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	5	5	-	-	-	-	5	-	5	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	2	2	-	-	-	-	1	-	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	12	44	Cost of supplies, total.....million dollars..	2.3	2.1
With 0 to 19 employees.....do....	9	40	Supplies used, minerals received for preparation, and purchased machinery.....do....	1.9	(NA)
With 20 to 99 employees.....do....	3	4	Cost of resales.....do....	(Z)	(NA)
With 100 or more employees.....do....	-	-	Purchased fuels consumed.....do....	.1	(NA)
All employees (average for year).....1,000..	.2	.3	Electric energy:		
Payroll (all employees), total for year.....million dollars..	1.6	1.7	Quantity purchased.....million kw.-hrs..	5.8	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	.1	(NA)
Average for the year.....1,000..	.2	.2	Generated less sold.....million kw.-hrs..	-	(NA)
March.....do....	.2	(NA)	Contract work.....million dollars..	.1	.2
May.....do....	.2	(NA)	Value of shipments and receipts (including resales), total.....do....	5.5	6.5
August.....do....	.2	(NA)	Value of resales.....do....	.1	(NA)
November.....do....	.2	(NA)	Value added in mining.....do....	5.0	4.9
Man-hours.....millions..	.4	.6	Capital expenditures (except land and mineral rights), total.....do....	1.8	.5
Wages.....million dollars..	1.3	1.5	Mineral development and exploration.....do....	-	(Z)
Supplemental labor cost not included in payroll.....do..	.1	(NA)	New structures and additions.....do....	.2	.5
			New machinery and equipment.....do....	1.4	
			Used plant and equipment.....do....	.1	
Legally required expenditures, including Social Security contributions.....do..	.1	(NA)	Mineral development and exploration expenditures, total.....do....	(Z)	(NA)
Payments for voluntary programs.....do..	.1	(NA)	Capitalized.....do....	-	(Z)
			Expensed.....do....	(Z)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Hawaii, total[1].....	12	3	.2	1.6	.2	.4	1.3	5.0	2.3	5.5	1.8	.3	4.9
	COUNTIES[2]													
	Honolulu county, total.....	7	3	.2	1.5	.2	.3	1.3	4.8	2.2	5.2	1.8	.2	2.8
14	Nonmetallic minerals, except fuels.....	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.8
142	Crushed and broken stone....	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Hawaii, total	12	-	-	-	-	12
0 to 4 employees	5	-	-	-	-	5
5 to 9 employees	2	-	-	-	-	2
10 to 19 employees	2	-	-	-	-	2
20 to 49 employees	1	-	-	-	-	1
50 to 99 employees	2	-	-	-	-	2
Hawaii county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Honolulu county, total	6	-	-	-	-	6
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	3
Kauai county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Maui county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3

Standard Notes: - Represents zero.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-872

1967 CENSUS OF Mineral Industries



MIC67(2)-11

AREA STATISTICS

IDAHO

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]97	23	3.1	23.3	2.6	5.2	18.6	48.1
1963	[1]145	14	3.3	19.1	2.8	5.5	15.5	40.1
1958	170	22	3.9	20.9	3.3	6.3	16.4	36.8
1954	249	28	4.8	22.4	4.1	8.6	18.7	[2]38.5
Including operations in manufactures:								
1967	109	23	3.1	23.5	2.6	5.3	18.8	48.8
1963	155	14	3.3	19.5	2.9	5.7	15.8	42.3
1958	183	22	4.0	21.1	3.4	6.4	16.6	38.4
1954 [3]	257	28	4.8	22.4	4.1	8.7	18.7	[2]38.7
1939	[4]116	(NA)	5.0	8.1	4.7	9.8	7.1	19.0
1929	153	(NA)	5.1	9.1	4.8	(NA)	8.3	15.6
1919 [5]	132	(NA)	3.1	5.4	2.8	(NA)	4.7	8.7
1909 [5]	890	(NA)	4.6	5.9	[6]4.3	(NA)	5.3	5.5
1902 [5]	[4]617	(NA)	4.9	5.5	[6]4.4	(NA)	4.8	6.0

Kind of operation and year	Selected expenses				Value of shipments and receipts [7]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[8]21.9	([8])	5.2	([8])	63.8	11.4	(NA)
1963	[9]12.0	([9])	3.6	1.4	51.9	5.1	.5
1958	11.4	2.1	3.4	1.2	52.1	2.9	.7
1954	11.5	2.7	1.8	3.3	[2]51.9	5.8	.5
Including operations in manufactures:							
1967	[10](D)	(D)	(D)	(D)	64.7	(D)	(NA)
1963	[9] [11]12.2	([9])	[11]3.6	[12]1.4	54.4	[12]5.1	[12].5
1958	[11]11.5	[12]2.1	[11]3.4	[12]1.2	[2]53.8	[12]2.9	[12].6
1954 [3]	[11]11.5	[12]2.7	[11]1.8	[12]3.3	[2]52.1	[12]5.8	[12].5
1939	4.3	(NA)	.1	(NA)	23.4	(NA)	.2
1929	4.8	(NA)	.3	1.0	20.7	(NA)	.3
1919 [5]	3.0	-	.2	(NA)	11.8	(NA)	[13].2
1909 [5]	2.8	-	.3	(NA)	8.6	(NA)	(NA)
1902 [5]	2.0	(NA)	.2	(NA)	8.2	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 35 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry. No data were obtained for 1954 on the value of shipments and cost of ores received for milling by this industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[4]Represents number of mines and quarries and, for mining services industries, number of operating companies.

[5]Excludes data for sand and gravel operations, and for 1919 and 1909, any stone quarries in cement and lime establishments. Only one sand and gravel operation was reported for 1929, and no such stone quarries.

[6]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Minerals received for preparation." For all other years the figures represent net production (or net shipments for copper, lead, zinc, gold, and silver ores) and exclude this duplication.

[8]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[9]Figures for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electric energy.

[10]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]For crushed and broken stone, sand and gravel, and clay mining operations (and for 1958, dimension stone quarries) in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[13]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 40 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	97	23	3.1	23.3	2.6	5.2	18.6	48.1	27.1	63.8	11.4	3.3	40.1
10	Metal mining	55	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.8	31.4
103	Lead and zinc ores	22	7	1.3	9.9	1.1	2.2	8.2	17.3	7.4	23.3	1.4	1.7	14.2
1032	Lead ores	17	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	5	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	20	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	17.1
1044	Silver ores	16	6	1.0	7.4	.8	1.6	5.8	14.8	(D)	17.9	(D)	1.0	17.1
109	Miscellaneous metal ores	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1094	Uranium-Radium-vanadium ores	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	41	8	.7	5.0	.6	1.1	3.8	14.3	13.0	19.4	7.9	.5	8.8
144	Sand and gravel	11	1	.1	.3	(Z)	.1	.3	1.1	.2	.9	.3	.1	1.1
1442	Construction sand and gravel	11	1	.1	.3	(Z)	.1	.3	1.1	.2	.9	.3	(D)	(D)
147	Chemical and fertilizer minerals	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	5	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	4	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	11	1	.1	.2	(Z)	-	.1	.5	(D)	.6	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number	Payroll[1]	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmettallic minerals, except fuels	12	-	(Z)	0.2	(Z)	0.1	0.2	0.7	(D)	0.9	(D)	0.1	2.2

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Idaho:													
	Establishments.....number..	97	91	37	22	15	-	34	12	20	2	3	17	6
	Employees.....1,000..	3.1	3.1	.3	.1	.2	-	2.5	2.1	(D)	(D)	(D)	.3	(Z)
	Value added in mining..mil.dol..	48.1	48.1	3.0	.3	2.7	-	41.4	31.7	(D)	(D)	(D)	1.8	(Z)
10	Metal mining:													
	Establishments.....number..	55	55	29	22	7	-	14	12	1	1	2	5	5
	Employees.....1,000..	(D)	(D)	.1	.1	(Z)	-	2.2	2.1	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	.4	.3	.1	-	31.7	31.7	(D)	(D)	(D)	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	7	6	5	-	5	-	1	1	-	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	22	19	10	10	-	-	6	6	-	-	1	2	3
	Employees.....1,000..	1.3	(D)	(Z)	(Z)	-	-	(D)	(D)	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	17.3	(D)	.1	.1	-	-	(D)	(D)	-	-	(D)	(D)	(D)
104	Gold and silver ores:													
	Establishments.....number..	20	19	11	11	-	-	7	5	1	1	-	1	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	.9	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	14.6	(D)	(D)	(D)	-	(D)	(D)
1081	Metal mining services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	3	3	2	1	1	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	(D)	-	-
13	Oil and gas extraction:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
138	Oil and gas field services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	41	40	8	-	8	-	20	-	19	1	1	11	1
	Employees.....1,000..	.7	(D)	.2	-	.2	-	.3	-	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	14.3	(D)	2.6	-	2.6	-	9.8	-	(D)	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	7	7	-	-	-	-	7	-	7	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	(Z)	-	(Z)	-	-	-	-
	Value added in mining..mil.dol..	1.2	1.2	-	-	-	-	1.2	-	1.2	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	11	11	-	-	-	-	5	-	4	1	-	6	-
	Employees.....1,000..	.1	.1	-	-	-	-	.1	-	(D)	(D)	-	(Z)	-
	Value added in mining..mil.dol..	1.1	1.1	-	-	-	-	1.0	-	(D)	(D)	-	.1	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Idaho--Continued													
14	Nonmetallic minerals, except fuels--Continued													
145	Clay and related minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	6	6	2	-	2	-	2	-	2	-	1	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
148	Nonmetallic minerals services:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	11	10	5	-	5	-	5	-	5	-	-	-	1
	Employees.....1,000..	.1	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	.5	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	97	145	Cost of supplies, total.....million dollars..	27.1	17.0
With 0 to 19 employees.....do....	74	131	Supplies used, minerals received for preparation, and purchased machinery.....do....	19.3	(NA)
With 20 to 99 employees.....do....	15	8	Cost of resales.....do....	(Z)	(NA)
With 100 or more employees.....do....	8	6	Purchased fuels consumed.....do....	1.1	(NA)
All employees (average for year).....1,000..	3.1	3.3	Electric energy:		
			Quantity purchased.....million kw.-hrs..	229.2	(NA)
Payroll (all employees), total for year.....million dollars..	23.3	19.1	Cost.....million dollars..	1.5	(NA)
			Generated less sold.....million kw.-hrs..	.8	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	5.2	3.6
Average for the year.....1,000..	2.6	2.8	Value of shipments and receipts (including resales), total.....do....	63.8	51.9
March.....do....	2.7	(NA)	Value of resales.....do....	(Z)	(NA)
May.....do....	2.8	(NA)			
August.....do....	2.6	(NA)	Value added in mining.....do....	48.1	40.1
November.....do....	2.3	(NA)			
Man-hours.....millions..	5.2	5.5	Capital expenditures (except land and mineral rights), total.....do....	11.4	5.1
Wages.....million dollars..	18.6	15.5	Mineral development and exploration.....do....	1.7	1.7
			New structures and additions.....do....	2.6	3.4
Supplemental labor cost not included in payroll.....do..	2.7	(NA)	New machinery and equipment.....do....	6.7	
			Used plant and equipment.....do....	.4	
Legally required expenditures, including Social Security contributions.....do..	1.3	(NA)	Mineral development and exploration expenditures, total.....do....	4.9	(NA)
Payments for voluntary programs.....do..	1.3	(NA)	Capitalized.....do....	1.7	1.7
			Expensed.....do....	3.2	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Idaho, total	97	23	3.1	23.3	2.6	5.2	18.6	48.1	27.1	63.8	11.4	3.3	40.1
	COUNTIES[2]													
	Bingham county, total	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Blaine county, total	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Caribou county, total	6	3	.3	2.0	.2	.4	1.5	8.9	9.9	12.5	6.4	.2	4.9
14	Nonmetallic minerals, except fuels	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Shoshone county, total	27	11	2.1	16.3	1.8	3.6	13.2	31.4	10.7	39.6	2.5	2.5	31.1
10	Metal mining	25	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	17	6	1.2	9.2	1.0	2.1	7.6	16.9	6.5	22.1	1.3	1.6	14.2
104	Gold and silver ores	6	5	.9	7.0	.8	1.5	5.5	14.2	4.1	17.2	1.1	.9	16.7

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Idaho, total	97	55	-	-	1	41
0 to 4 employees	57	32	-	-	1	24
5 to 9 employees	11	5	-	-	-	6
10 to 19 employees	6	3	-	-	-	3
20 to 49 employees	8	4	-	-	-	4
50 to 99 employees	7	4	-	-	-	3
100 to 249 employees	5	4	-	-	-	1
250 to 499 employees	1	1	-	-	-	-
500 to 999 employees	2	2	-	-	-	-
Ada county, total	12	9	-	-	-	3
0 to 19 employees	12	9	-	-	-	3
Bannock county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Bear Lake county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Bingham county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Blaine county, total	4	3	-	-	-	1
0 to 19 employees	3	2	-	-	-	1
100 to 249 employees	1	1	-	-	-	-
Bonner county, total	2	2	-	-	-	-
0 to 19 employees	2	2	-	-	-	-
Bonneville county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Camas county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Canyon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Caribou county, total	6	1	-	-	1	4
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	3	1	-	-	-	2
Cassia county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Clark county, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Custer county, total	3	3	-	-	-	-
0 to 19 employees	2	2	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
Franklin county, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Fremont county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Gem county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Idaho county, total	4	1	-	-	-	3
0 to 19 employees	4	1	-	-	-	3
Kootenai county, total	3	2	-	-	-	1
0 to 19 employees	3	2	-	-	-	1
Latah county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Lemhi county, total	6	5	-	-	-	1
0 to 19 employees	5	4	-	-	-	1
20 to 99 employees	1	1	-	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Idaho--Continued						
Lewis county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lincoln county, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Madison county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Minidoka county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Oneida county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Shoshone county, total	27	25	-	-	-	2
0 to 19 employees	16	14	-	-	-	2
20 to 99 employees	5	5	-	-	-	-
100 to 249 employees	3	3	-	-	-	-
250 employees and over	3	3	-	-	-	-
Twin Falls county, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Washington county, total	4	1	-	-	-	3
0 to 19 employees	3	1	-	-	-	2
20 to 99 employees	1	-	-	-	-	1

Standard Notes: -Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

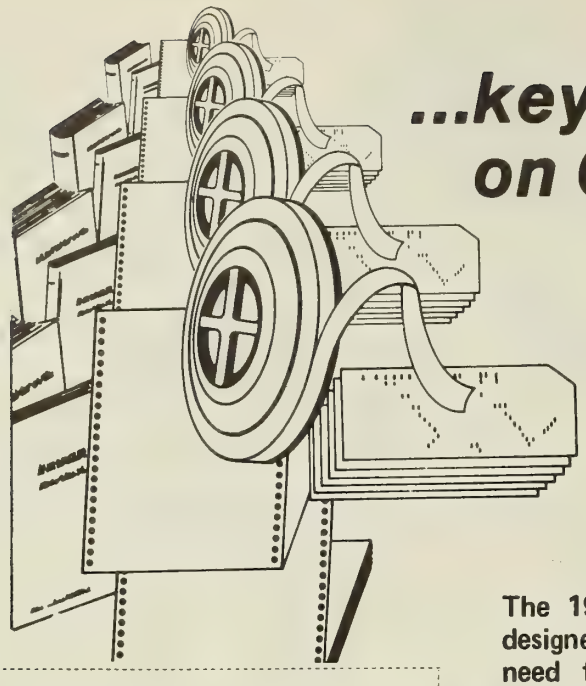
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-871

1967 CENSUS OF Mineral Industries



MIC67(2)-12

AREA STATISTICS

ILLINOIS

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	12
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

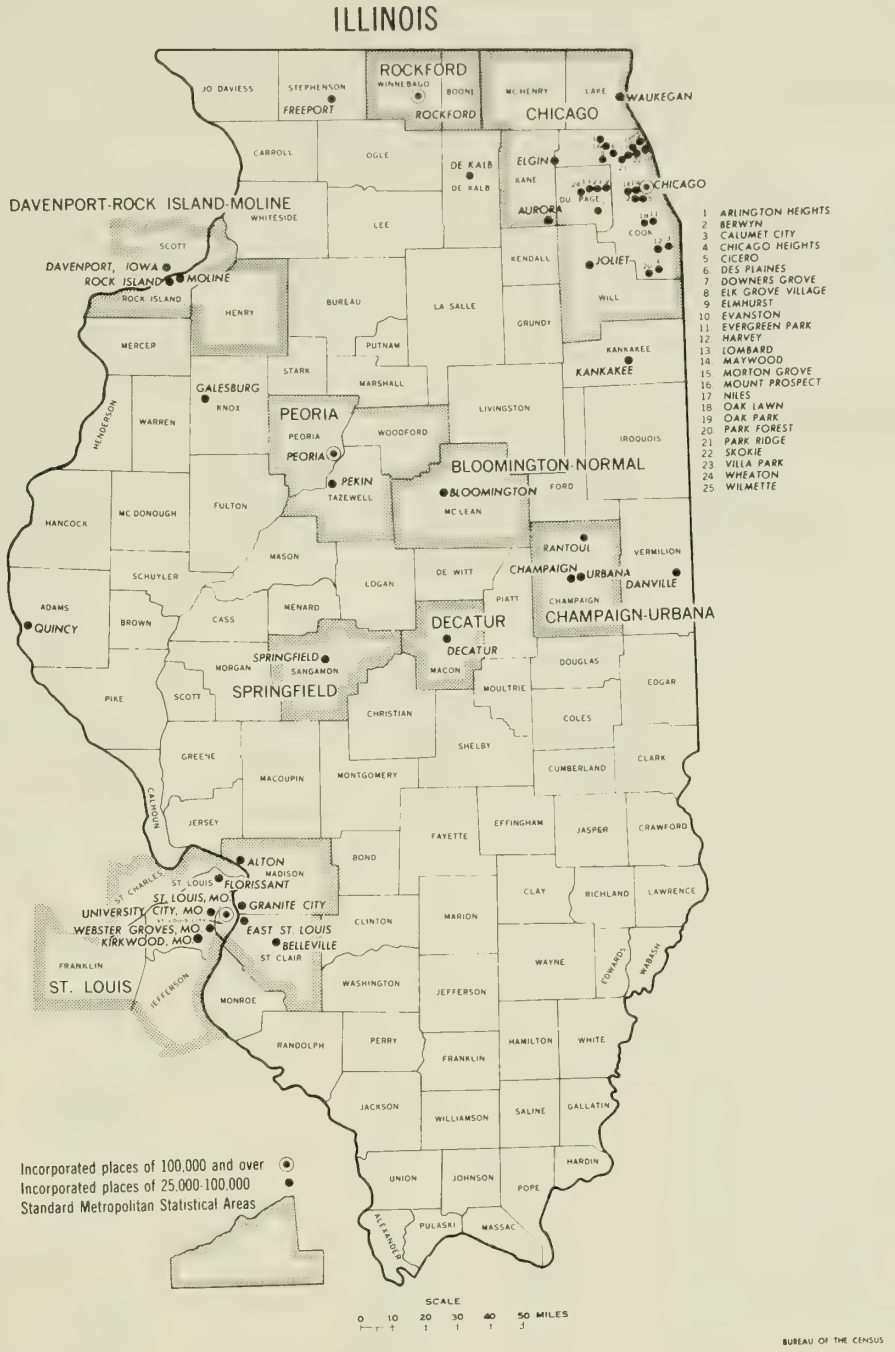
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] 962	214	20.7	167.0	16.6	35.9	126.9	468.5
1963	[1] 1,447	209	22.0	135.4	18.0	36.3	106.7	450.5
1958	1,323	253	27.1	142.7	22.8	43.2	113.0	452.4
1954	1,345	470	30.2	126.8	26.6	48.7	107.2	375.2
Including operations in manufactures:								
1967	998	216	21.0	168.8	16.9	36.4	128.7	474.1
1963	1,521	215	22.7	138.4	18.7	37.6	109.7	461.6
1958	1,375	258	27.5	144.4	23.2	43.9	114.7	462.2
1954[2]	1,384	269	30.5	128.2	27.0	49.4	108.5	378.6
1939[3]	[4] 1,233	(NA)	48.9	65.4	44.4	68.5	54.3	165.5
1929	-	-	-	-	-	-	-	-
1919[5]	772	(NA)	83.6	104.3	79.1	(NA)	94.2	153.6
1909[5]	995	(NA)	74.7	49.5	[7] 72.1	(NA)	46.4	64.3
1902[6]	[4] 1,107	(NA)	41.9	28.6	[7] 40.0	(NA)	26.7	34.1
Excluding oil and gas extraction industries:								
1967	464	142	15.5	136.2	12.3	27.4	103.2	302.3
1963	584	145	16.2	106.8	13.2	27.1	84.5	246.3
1958	576	154	18.5	105.5	15.6	30.2	83.8	232.9
1954[2]	615	157	20.5	88.2	18.4	32.9	75.6	188.4
1939[8]	[4] 847	(NA)	37.4	46.8	34.6	50.8	39.4	70.8
1929[2]	536	(NA)	56.1	80.6	53.4	(NA)	73.8	112.5
1919[5]	536	(NA)	80.6	100.3	76.4	(NA)	90.9	124.7
1909[5]	668	(NA)	70.6	46.5	68.4	(NA)	43.8	51.8
1902[6]	[4] 1,083	(NA)	41.9	28.6	[7] 40.0	(NA)	26.7	34.1

Kind of operation and year	Selected expenses				Value of shipments and receipts [10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation [9] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11] 165.8	([11])	23.1	([11])	589.5	68.0	(NA)
1963	96.2	98.7	21.3	44.7	654.5	57.0	5.4
1958	98.9	81.3	28.1	31.2	638.8	53.0	8.6
1954	77.0	23.8	41.7	38.3	492.5	63.6	7.9
Including operations in manufactures:							
1967	[12] (D)	([12])	[12] (NA)	([12])	596.8	(D)	(NA)
1963	[16] [13] 98.8	98.7	[13] 21.3	[14] 44.7	668.1	[14] 57.0	[14] 5.4
1958	[16] [13] 100.1	81.3	[13] 28.1	[14] 31.2	649.8	[14] 53.0	[14] 8.6
1954[2]	[13] 78.0	23.8	[13] 41.7	[14] 38.3	496.8	[11] 63.6	[14] 7.9
1939[3]	23.7	(NA)	22.4	(NA)	211.7	(NA)	8.7
1929	-	-	-	-	-	-	-
1919[5]	24.5	.1	.4	(NA)	178.7	(NA)	[15] 16.6
1909[5]	9.8	.1	2.4	(NA)	76.7	(NA)	(NA)
1902[6]	3.3	(NA)	(Z)	(NA)	37.5	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[13] (D)	(NA)	(NA)	(NA)	396.6	(D)	(NA)
1963	[13] 87.1	(16)	[12] 3.7	[14] 32.5	336.1	[14] 33.5	[14] 3.3
1958	[13] 77.7	(16)	[13] 3.5	[14] 17.6	307.7	[14] 23.9	[14] 2.8
1954[2]	[13] 45.9	21.2	[13] 5.4	[14] 15.6	259.6	[14] 16.9	[14] 2.9
1939[8]	19.3	(NA)	.3	(NA)	90.5	(NA)	7.1
1929[2]	20.2	(NA)	.3	8.2	132.9	(NA)	9.2
1919[5]	22.7	-	.1	(NA)	147.4	(NA)	[15] 16.0
1909[5]	5.7	.1	.1	(NA)	57.8	(NA)	(NA)
1902[6]	3.3	(NA)	(Z)	(NA)	37.5	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Illinois--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 279 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for any sand and gravel mining operations in manufacturing establishments.

[3]Excludes data for dimension stone dressing operations, if any, in conjunction with one dimension limestone quarry.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand, gravel, common clay, and shale mining operations and limestone quarries operated as parts of cement and lime plants. There were 137 such mines and quarries in 1939 with products valued at $5,822 thousand. For 1919, excludes data for one nonproducing establishment. For "Excluding oil and gas extraction industries" in 1909, except for number of establishments, includes data for nonproducing crude petroleum and natural gas operations.

[6]Excludes data for sand, gravel, common clay, and shale mining operations and limestone quarries operated as parts of cement plants. Includes data for lime plants producing lime valued at $486 thousand.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes data for 5 nonproducing mines. See also footnote 3.

[9]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants, but for 1954 includes the estimated value prior to processing of natural gas liquids contained in such gas.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For dimension stone in manufactures in 1963, the cost of contract work and purchased machinery installed minus capital expenditures was also included.

[14]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments. For 1963, also excludes data for dimension stone in manufactures.

[15]Excludes purchased electric energy. For 1939, The quantity of purchased electric energy for "All operations" amounted to only 3 percent of the total kw.-hrs. equivalent of energy used; and for 1929 for "Excluding oil and gas extraction industries," to only 2 percent.

[16]Figures for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electricity.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	962	214	20.7	167.0	16.6	35.9	126.9	468.5	188.9	589.5	68.0	22.0	450.5
10	Metal mining	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
103	Lead and zinc ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	82	59	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	9.0	157.0
121	Bituminous coal and lignite mining	82	59	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	80	59	8.8	82.8	7.6	17.2	70.7	193.4	86.6	254.4	25.7	9.0	156.9
13	Oil and gas extraction	534	74	5.5	32.6	4.6	9.0	25.5	171.8	55.1	200.2	26.6	6.5	215.2
131	Crude petroleum and natural gas	304	38	3.2	20.3	2.6	4.7	14.9	144.7	44.7	166.3	23.1	4.3	186.9
1312	Crude petroleum	301	38	3.2	20.2	2.6	4.7	14.9	143.0	44.5	165.6	21.9	(D)	(D)
138	Oil and gas field services	230	36	2.3	12.4	2.1	4.3	10.6	27.1	10.4	33.9	3.5	(D)	(D)
1381	Drilling oil and gas wells	99	16	1.0	5.1	.9	1.8	4.6	10.5	4.6	13.4	1.8	1.3	11.1
1389	Oil and gas field services, n.e.c.	117	20	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	340	80	6.3	51.0	4.3	9.6	30.5	102.1	46.4	132.7	15.6	(NA)	(NA)
142	Crushed and broken stone	147	42	2.5	18.8	2.1	4.7	14.5	54.4	20.7	69.7	5.3	2.5	38.4
1422	Crushed and broken limestone	140	40	2.4	18.0	2.1	4.6	14.2	53.7	20.0	68.4	5.2	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	7	2	.1	.8	(Z)	.1	.3	.7	.7	1.3	(Z)	(NA)	(NA)
144	Sand and gravel	151	25	1.9	14.4	1.5	3.3	11.1	34.0	15.4	43.0	6.4	2.2	27.3
1442	Construction sand and gravel	142	19	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1443	Glass sand	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1444	Molding sand, n.e.c.	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1445	Industrial sand, n.e.c.	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay and related minerals	13	5	.4	3.1	.3	.6	2.0	3.7	4.0	5.3	2.3	.2	2.1
1452	Bentonite	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.9
147	Chemical and fertilizer minerals	12	5	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1473	Fluorspar	10	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	12	3	.2	1.1	.1	.1	.3	1.2	(D)	1.6	(D)	(D)	(D)
1497	Natural abrasives, except sand	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	36	2	0.3	1.8	0.3	0.5	1.8	5.6	(D)	7.3	(D)	0.6	11.0
142	Crushed and broken stone (limestone)	6	2	0.1	1.0	0.1	0.3	1.0	3.1	1.0	4.1	(NA)	0.2	4.4
145	Clay and related minerals	20	-	0.1	0.4	0.1	0.1	0.4	1.0	0.5	1.5	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Illinois:													
	Establishments.....number..	962	955	185	18	21	146	292	40	238	14	9	469	7
	Employees.....1,000..	20.7	(D)	3.4	.4	.1	2.9	12.7	5.4	7.0	.3	(D)	4.4	(D)
	Value added in mining..mil.dol..	468.5	(D)	144.4	4.2	1.4	138.8	284.1	92.4	182.2	9.6	(D)	36.1	(D)
10	Metal mining:													
	Establishments.....number..	6	6	3	1	2	-	-	-	-	-	1	2	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	(D)	(D)	-
1011	Iron ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
103	Lead and zinc ores:													
	Establishments.....number..	2	2	1	1	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	2	2	1	-	1	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	82	80	14	13	1	-	55	26	27	2	1	10	2
	Employees.....1,000..	(D)	(D)	(D)	.4	(D)	-	8.0	(D)	3.1	(D)	(D)	.4	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	3.8	(D)	-	188.8	(D)	101.8	(D)	(D)	(Z)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	82	80	14	13	1	-	55	26	27	2	1	10	2
	Employees.....1,000..	(D)	(D)	(D)	.4	(D)	-	8.0	(D)	3.1	(D)	(D)	.4	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	3.8	(D)	-	188.8	(D)	101.8	(D)	(D)	(Z)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	534	531	142	-	-	142	-	-	-	-	-	389	3
	Employees.....1,000..	5.5	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	171.7	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	308	305	142	-	-	142	-	-	-	-	-	163	3
	Employees.....1,000..	3.3	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	144.7	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	230	230	-	-	-	-	-	-	-	-	-	230	-
	Employees.....1,000..	2.3	2.3	-	-	-	-	-	-	-	-	-	2.3	-
	Value added in mining..mil.dol..	27.1	27.1	-	-	-	-	-	-	-	-	-	27.1	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	340	338	26	4	18	4	237	14	211	12	7	68	2
	Employees.....1,000..	6.3	(D)	.1	(D)	(D)	.1	4.7	(D)	3.9	(D)	(D)	1.4	(D)
	Value added in mining..mil.dol..	102.1	(D)	2.1	(D)	(D)	1.1	95.4	(D)	80.4	(D)	(D)	2.0	(D)
141	Dimension stone:													
	Establishments.....number..	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	147	146	1	-	1	-	140	9	129	2	1	4	1
	Employees.....1,000..	2.5	(D)	(D)	-	(D)	-	2.4	(D)	2.1	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	54.4	(D)	(D)	-	(D)	-	54.1	(D)	48.9	(D)	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	151	151	13	-	9	4	80	-	70	10	4	54	-
	Employees.....1,000..	1.9	1.9	.1	-	(Z)	.1	1.6	-	1.5	.1	(Z)	.2	-
	Value added in mining..mil.dol..	34.0	34.0	1.6	-	.6	1.1	30.0	-	27.5	2.6	.3	2.0	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Illinois--Continued													
14	Nonmetallic minerals, except fuels--Continued													
145	Clay and related minerals:													
	Establishments.....number..	13	13	6	-	6	-	6	-	6	-	-	1	-
	Employees.....1,000..	.4	.4	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	3.7	3.7	.2	-	.2	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	12	11	4	4	-	-	3	3	-	-	2	2	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	(D)	(D)	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	12	12	-	-	-	-	8	2	6	-	-	4	-
	Employees.....1,000..	.2	.2	-	-	-	-	.1	(D)	(D)	-	-	.1	-
	Value added in mining..mil.dol..	1.2	1.2	-	-	-	-	1.2	(D)	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	962	1,447	Cost of supplies, total.....million dollars..	188.9	260.9
With 0 to 19 employees.....do....	748	1,055	Supplies used, minerals received for preparation, and purchased machinery.....do....	136.0	(NA)
With 20 to 99 employees.....do....	165	349	Cost of resales.....do....	.9	(NA)
With 100 or more employees.....do....	49	43	Purchased fuels consumed.....do....	9.6	(NA)
All employees (average for year).....1,000..	20.7	22.0	Electric energy:		
			Quantity purchased.....million kw.-hrs..	1,326.4	(NA)
Payroll (all employees), total for year.....million dollars..	167.0	135.4	Cost.....million dollars..	19.2	(NA)
			Generated less sold.....million kw.-hrs..	35.2	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	23.1	21.3
Average for the year.....1,000..	16.6	18.0	Value of shipments and receipts (including resales), total.....do....	589.5	654.5
March.....do....	16.0	(NA)	Value of resales.....do....	1.6	(NA)
May.....do....	16.5	(NA)			
August.....do....	17.1	(NA)	Value added in mining.....do....	468.5	450.5
November.....do....	16.6	(NA)			
Man-hours.....millions..	35.9	36.3	Capital expenditures (except land and mineral rights), total.....do....	68.0	57.0
Wages.....million dollars..	126.9	106.7	Mineral development and exploration.....do....	10.3	10.9
			New structures and additions.....do....	16.2	46.0
Supplemental labor cost not included in payroll.....do..	22.8	(NA)	New machinery and equipment.....do....	36.1	
			Used plant and equipment.....do....	5.4	
Legally required expenditures, including Social Security contributions.....do..	7.8	(NA)	Mineral development and exploration expenditures, total.....do....	15.7	(NA)
Payments for voluntary programs.....do..	15.0	(NA)	Capitalized.....do....	10.3	10.9
			Expensed.....do....	5.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Illinois, total	962	214	20.7	167.0	16.6	35.9	126.9	468.5	188.9	589.5	68.0	22.0	450.5
	COUNTIES[2]													
	Adams county	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
	Christian county, total	19	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Clay county, total	83	4	.4	2.5	.3	.7	2.0	12.3	4.7	15.3	1.7	.4	8.2
13	Oil and gas extraction	79	4	.3	2.2	.3	.6	1.8	11.6	4.4	14.3	1.7	(D)	(D)
131	Crude petroleum and natural gas	47	1	.1	.7	.1	.2	.5	8.0	2.4	9.4	1.1	.2	6.1
138	Oil and gas field services	32	3	.2	1.5	.2	.5	1.3	3.6	2.0	5.0	.6	(D)	(D)
	Cook county, total	61	17	2.1	21.6	.6	1.3	4.5	24.6	5.8	27.8	2.6	2.2	14.8
12	Bituminous coal and lignite mining	8	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	8	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	25	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	27	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	10	6	.5	4.0	.4	1.1	3.6	21.5	5.1	25.8	.8	(D)	(D)
144	Sand and gravel	9	1	.1	1.0	.1	.1	.5	1.3	.5	1.4	.4	(Z)	.5
145	Clay and related minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Crawford county, total	37	2	.4	2.9	.3	.7	2.3	7.9	2.6	9.1	1.3	.5	11.0
13	Oil and gas extraction	36	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	17	2	.3	2.4	.3	.6	1.9	7.1	2.1	8.2	1.1	.4	10.2
	Douglas county, total	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Du Page county, total	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fayette county, total	47	4	.4	2.6	.4	.8	2.2	21.9	4.7	25.3	1.3	.5	41.6
13	Oil and gas extraction	44	4	.4	2.6	.4	.8	2.2	21.9	4.6	25.2	1.3	(D)	(D)
131	Crude petroleum and natural gas	26	1	.2	1.5	.2	.4	1.2	20.2	4.0	23.1	1.0	.2	40.4
138	Oil and gas field services	18	3	.2	1.1	.2	.4	1.0	1.7	.6	2.1	.2	(D)	(D)
	Franklin county, total	39	7	1.5	12.9	1.2	2.6	10.9	29.5	11.8	34.1	7.2	1.1	17.9
12	Bituminous coal and lignite mining	6	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	6	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	33	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fulton county, total	10	7	.9	9.7	.8	1.9	8.4	24.9	8.6	32.6	.8	1.0	22.4
12	Bituminous coal and lignite mining	8	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	8	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gallatin county, total	44	2	.2	1.2	.2	.3	1.0	5.8	7.6	5.4	8.0	.1	4.5
12	Bituminous coal and lignite mining	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Illinois--Continued													
	COUNTIES[2]--Continued													
	Grundy county, total.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals...	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hamilton county, total.....	53	4	.2	1.2	.2	.3	.9	13.6	4.4	15.1	3.0	.3	10.0
13	Oil and gas extraction.....	53	4	.2	1.2	.2	.3	.9	13.6	4.4	15.1	3.0	(D)	(D)
131	Crude petroleum and natural gas.....	42	1	.1	.7	.1	.2	.5	12.8	4.2	14.1	2.9	.2	9.1
	Hardin county, total.....	13	5	.5	3.6	.4	1.1	3.0	10.1	5.2	14.8	.5	.6	6.4
14	Nonmetallic minerals, except fuels.....	12	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	6.4
147	Chemical and fertilizer minerals.....	7	4	.4	3.0	.4	.9	2.5	8.7	4.7	12.9	.4	(D)	(D)
	Jefferson county, total.....	58	3	.8	6.3	.7	1.5	5.9	15.4	4.1	18.3	1.2	.8	15.6
12	Bituminous coal and lignite mining.....	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction.....	56	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	46	1	.2	.9	.1	.2	.7	4.1	1.2	4.6	.7	.2	5.4
	Kane county, total.....	18	1	.2	1.0	.1	.3	.8	3.3	1.2	4.2	.3	.1	1.8
14	Nonmetallic minerals, except fuels.....	15	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel.....	11	1	.1	.8	.1	.2	.7	2.8	.9	3.5	.2	(D)	(D)
	Knox county, total.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	La Salle county, total.....	19	8	.8	5.8	.6	1.3	4.3	13.0	9.3	18.2	4.1	.7	10.1
14	Nonmetallic minerals, except fuels.....	16	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel.....	10	6	.6	4.4	.4	1.0	3.1	11.5	5.6	15.1	2.1	.5	8.6
145	Clay and related minerals...	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lawrence county, total.....	59	4	.5	3.1	.4	.8	2.3	16.8	4.2	19.2	1.7	.5	19.3
13	Oil and gas extraction.....	56	4	.5	3.0	.4	.7	2.3	16.7	4.1	19.1	1.7	.5	19.2
131	Crude petroleum and natural gas.....	35	3	.4	2.6	.3	.6	1.9	16.0	3.7	18.2	1.5	.4	18.5
138	Oil and gas field services..	21	1	.1	.4	.1	.2	.4	.7	.3	.8	.2	.1	.7
	Livingston county,.....	7	2	.1	.9	.1	.2	.6	2.5	.9	2.6	.8	.1	1.2
	McHenry county, total.....	10	5	.2	1.5	.1	.3	1.2	2.5	1.9	4.0	.4	.2	2.6
14	Nonmetallic minerals, except fuels.....	10	5	.2	1.5	.1	.3	1.2	2.5	1.9	4.0	.4	.2	2.6
144	Sand and gravel.....	9	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Macoupin county, total.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Madison county, total.....	26	4	.2	1.9	.1	.3	1.0	2.4	.7	2.8	.3	.4	4.4
14	Nonmetallic minerals, except fuels.....	8	4	.2	1.8	.1	.3	.9	2.2	.7	2.6	.3	(D)	(D)
142	Crushed and broken stone....	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Illinois--Continued													
	COUNTIES[2]--Continued													
	Marion county, total	54	3	.4	2.5	.3	.6	1.8	12.7	4.5	15.8	1.4	.5	25.5
13	Oil and gas extraction	53	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	32	1	.3	1.8	.2	.4	1.3	11.5	4.1	14.3	1.3	.3	24.5
138	Oil and gas field services	21	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Montgomery county, total	7	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Peoria county, total	12	5	.3	2.6	.2	.5	2.1	7.6	2.1	9.2	.5	.3	5.2
12	Bituminous coal and lignite mining	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.6
121	Bituminous coal and lignite mining	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.6
14	Nonmetallic minerals, except fuels	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.5
	Perry county, total	11	3	.5	5.5	.4	1.1	5.0	25.4	9.2	32.2	2.4	(D)	(D)
12	Bituminous coal and lignite mining	4	3	.5	5.5	.4	1.1	5.0	25.1	9.1	31.8	2.4	(D)	(D)
121	Bituminous coal and lignite mining	4	3	.5	5.5	.4	1.1	5.0	25.1	9.1	31.8	2.4	(D)	(D)
	Randolph county, total	9	5	.6	5.9	.5	1.3	5.4	13.5	6.2	18.4	1.3	.4	7.2
12	Bituminous coal and lignite mining	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.6
142	Crushed and broken stone	4	2	.1	.8	.1	.3	.8	1.9	.4	2.1	.2	(D)	(D)
	Richland county, total	74	5	.4	2.2	.3	.6	1.6	5.4	2.5	6.7	1.2	.2	4.7
13	Oil and gas extraction	74	5	.4	2.2	.3	.6	1.6	5.4	2.5	6.7	1.2	(D)	(D)
131	Crude petroleum and natural gas	41	2	.2	1.1	.1	.2	.7	3.2	2.0	4.1	1.1	.1	2.2
138	Oil and gas field services	33	3	.2	1.1	.2	.4	.9	2.2	.6	2.5	.2	(D)	(D)
	Rock Island county, total	15	1	.1	.8	.1	.2	.7	2.3	1.3	3.4	.2	.1	1.4
14	Nonmetallic minerals, except fuels	12	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Clair county, total	15	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	26.3
12	Bituminous coal and lignite mining	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	9	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.1
142	Crushed and broken stone	6	4	.2	1.2	.2	.3	.9	2.1	1.0	2.8	.3	(D)	(D)
	Saline county, total	33	5	.8	6.8	.6	1.4	5.5	11.8	11.3	22.0	1.1	.9	15.5
12	Bituminous coal and lignite, mining	6	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	14.0
121	Bituminous coal and lignite mining	6	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Illinois--Continued													
	COUNTIES[2]--Continued													
	Vermilion county, total.....	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.8
12	Bituminous coal and lignite mining.....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wabash county, total.....	97	4	.4	1.8	.3	.6	1.5	8.3	3.3	10.3	1.4	.4	9.6
13	Oil and gas extraction.....	96	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	9.6
131	Crude petroleum and natural gas.....	62	1	.2	.9	.2	.3	.7	6.3	2.5	7.6	1.2	.2	8.1
138	Oil and gas field services..	34	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.5
	Washington county, total.....	23	4	.1	.5	.1	.2	.4	2.2	.9	2.8	.2	.1	1.5
	Wayne county, total.....	88	3	.5	2.5	.4	.8	2.0	14.3	5.8	17.0	3.1	.5	10.3
13	Oil and gas extraction.....	88	3	.5	2.5	.4	.8	2.0	14.3	5.8	17.0	3.1	.5	10.3
131	Crude petroleum and natural gas.....	57	2	.3	1.5	.2	.4	1.1	12.6	5.1	14.9	2.8	.3	9.2
138	Oil and gas field services..	31	1	.2	1.0	.2	.4	.9	1.7	.6	2.0	.3	.2	1.1
	White county, total.....	130	7	.7	4.2	.6	1.2	3.4	16.8	5.3	19.1	3.0	.8	18.4
13	Oil and gas extraction.....	129	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	82	4	.4	2.4	.3	.6	1.8	13.5	4.1	15.1	2.5	.6	15.5
138	Oil and gas field services..	47	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Will county, total.....	11	7	.4	3.8	.4	.8	3.3	6.6	3.5	9.4	.7	.4	7.1
12	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	10	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone....	5	3	.1	1.1	.1	.3	.9	2.2	1.0	3.0	.2	(D)	(D)
144	Sand and gravel.....	5	3	.1	1.0	.1	.2	.9	1.9	.6	2.2	.3	.1	2.1
	Williamson county, total.....	16	9	.9	8.0	.8	1.7	7.2	16.1	5.7	20.3	1.5	1.3	16.3
12	Bituminous coal and lignite mining.....	13	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	16.1
121	Bituminous coal and lignite mining.....	13	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Illinois, total	[1]962	6	-	82	534	340
0 to 4 employees	464	3	-	13	316	132
5 to 9 employees	128	1	-	4	72	51
10 to 19 employees	156	1	-	6	72	77
20 to 49 employees	130	1	-	13	57	59
50 to 99 employees	35	-	-	12	11	12
100 to 249 employees	37	-	-	26	4	7
250 to 499 employees	7	-	-	5	1	1
500 to 999 employees	5	-	-	3	1	1
Adams county, total	6	-	-	1	1	4
0 to 19 employees	5	-	-	1	1	3
20 to 99 employees	1	-	-	-	-	1
Alexander county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Bond county, total	14	-	-	-	11	3
0 to 19 employees	14	-	-	-	11	3
Boone county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Bureau county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Calhoun county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Carroll county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Champaign county, total	8	-	-	-	2	6
0 to 19 employees	7	-	-	-	2	5
20 to 99 employees	1	-	-	-	-	1
Christian county, total	19	-	-	2	17	-
0 to 19 employees	17	-	-	1	16	-
20 to 99 employees	1	-	-	-	1	-
250 employees and over	1	-	-	1	-	-
Clark county, total	28	-	-	-	24	4
0 to 19 employees	27	-	-	-	24	3
20 to 99 employees	1	-	-	-	-	1
Clay county, total	83	-	-	-	79	4
0 to 19 employees	79	-	-	-	75	4
20 to 99 employees	4	-	-	-	4	-
Clinton county, total	32	-	-	-	29	3
0 to 19 employees	32	-	-	-	29	3
Coles county, total	25	-	-	-	21	4
0 to 19 employees	24	-	-	-	21	3
20 to 99 employees	1	-	-	-	-	1
Cook county, total	61	1	-	8	25	27
0 to 19 employees	44	1	-	3	24	16
20 to 99 employees	14	-	-	5	1	8
100 to 249 employees	2	-	-	-	-	2
250 employees and over	1	-	-	-	-	1
Crawford county, total	37	-	-	-	36	1
0 to 19 employees	35	-	-	-	34	1
20 to 99 employees	1	-	-	-	1	-
100 to 249 employees	1	-	-	-	1	-
Cumberland county, total	7	-	-	-	5	2
0 to 19 employees	6	-	-	-	4	2
20 to 99 employees	1	-	-	-	1	-
De Kalb county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
De Witt county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Douglas county, total	6	-	-	1	5	-
0 to 19 employees	5	-	-	-	5	-
100 to 249 employees	1	-	-	1	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Illinois--continued						
Du Page county, total	9	1	-	1	2	5
0 to 19 employees	6	1	-	1	2	2
20 to 99 employees	3	-	-	-	-	3
Edgar county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Edwards county, total	42	-	-	-	42	-
0 to 19 employees	41	-	-	-	41	-
20 to 99 employees	1	-	-	-	1	-
Effingham county, total	32	-	-	-	30	2
0 to 19 employees	32	-	-	-	30	2
Fayette county, total	47	-	-	-	44	3
0 to 19 employees	43	-	-	-	40	3
20 to 99 employees	4	-	-	-	4	-
Ford county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Franklin county, total	39	-	-	6	33	-
0 to 19 employees	32	-	-	-	32	-
20 to 99 employees	3	-	-	2	1	-
100 to 249 employees	1	-	-	1	-	-
250 employees and over	3	-	-	3	-	-
Fulton county, total	10	-	-	8	-	2
0 to 19 employees	3	-	-	1	-	2
20 to 99 employees	2	-	-	2	-	-
100 to 249 employees	5	-	-	5	-	-
Gallatin county, total	44	-	-	2	41	1
0 to 19 employees	42	-	-	-	41	1
20 to 99 employees	2	-	-	2	-	-
Greene county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Grundy county, total	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Hamilton county, total	53	-	-	-	53	-
0 to 19 employees	49	-	-	-	49	-
20 to 99 employees	4	-	-	-	4	-
Hancock county, total	5	1	-	-	1	3
0 to 19 employees	5	1	-	-	1	3
Hardin county, total	13	1	-	-	-	12
0 to 19 employees	8	1	-	-	-	7
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	2	-	-	-	-	2
Henderson county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Henry county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Iroquois county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Jackson county, total	3	-	-	2	-	1
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	1	-	-
Jasper county, total	38	-	-	-	38	-
0 to 19 employees	38	-	-	-	38	-
Jefferson county, total	58	-	-	1	56	1
0 to 19 employees	55	-	-	-	54	1
20 to 99 employees	2	-	-	-	2	-
250 employees and over	1	-	-	1	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Illinois--continued						
Jersey county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Jo Daviess county, total	6	2	-	-	1	3
0 to 19 employees	5	1	-	-	1	3
20 to 99 employees	1	1	-	-	-	-
Johnson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Kane county, total	18	-	-	-	3	15
0 to 19 employees	17	-	-	-	3	14
20 to 99 employees	1	-	-	-	-	1
Kankakee county, total	5	-	-	-	2	3
0 to 19 employees	4	-	-	-	2	2
20 to 99 employees	1	-	-	-	-	1
Kendall county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Knox county, total	3	-	-	1	1	1
0 to 19 employees	2	-	-	-	1	1
100 to 249 employees	1	-	-	1	-	-
Lake county, total	9	-	-	-	1	8
0 to 19 employees	9	-	-	-	1	8
LaSalle county, total	19	-	-	-	3	16
0 to 19 employees	11	-	-	-	3	8
20 to 99 employees	5	-	-	-	-	5
100 to 249 employees	2	-	-	-	-	2
250 employees and over	1	-	-	-	-	1
Lawrence county, total	59	-	-	-	56	3
0 to 19 employees	55	-	-	-	52	3
20 to 99 employees	3	-	-	-	3	-
250 employees and over	1	-	-	-	1	-
Lee county, total	8	-	-	-	-	8
0 to 19 employees	8	-	-	-	-	8
Livingston county, total	7	-	-	-	2	5
0 to 19 employees	5	-	-	-	2	3
20 to 99 employees	2	-	-	-	-	2
Logan county, total	5	-	-	1	1	3
0 to 19 employees	5	-	-	1	1	3
McDonough county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
McHenry county, total	10	-	-	-	-	10
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	5	-	-	-	-	5
McLean county, total	8	-	-	-	5	3
0 to 19 employees	8	-	-	-	5	3
Macon county, total	17	-	-	-	11	6
0 to 19 employees	17	-	-	-	11	6
Macoupin county, total	3	-	-	1	2	-
0 to 19 employees	2	-	-	-	2	-
100 to 249 employees	1	-	-	1	-	-
Madison county, total	26	-	-	-	18	8
0 to 19 employees	22	-	-	-	18	4
20 to 99 employees	4	-	-	-	-	4
Marion county, total	54	-	-	-	53	1
0 to 19 employees	51	-	-	-	50	1
20 to 99 employees	2	-	-	-	2	-
100 to 249 employees	1	-	-	-	1	-
Marshall county, total	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
5 to 9 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[2]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Illinois--continued						
Massac county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Menard county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Mercer county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Monroe county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Montgomery county, total	7	-	-	2	1	4
0 to 19 employees	5	-	-	-	1	4
100 to 249 employees	1	-	-	1	-	-
250 employees and over	1	-	-	1	-	-
Morgan county, total	3	-	-	-	3	-
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	1	-
Moultrie county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Ogle county, total	10	-	-	-	1	9
0 to 19 employees	9	-	-	-	1	8
20 to 99 employees	1	-	-	-	-	1
Peoria county, total	12	-	-	5	-	7
0 to 19 employees	7	-	-	2	-	5
20 to 99 employees	5	-	-	3	-	2
Perry county, total	11	-	-	4	7	-
0 to 19 employees	8	-	-	1	7	-
100 to 249 employees	3	-	-	3	-	-
Piatt county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Pike county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Pope county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Pulaski county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Randolph county, total	9	-	-	3	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	3	-	-	3	-	-
Richland county, total	74	-	-	-	74	-
0 to 19 employees	69	-	-	-	69	-
20 to 99 employees	5	-	-	-	5	-
Rock Island county, total	15	-	-	1	2	12
0 to 19 employees	14	-	-	1	2	11
20 to 99 employees	1	-	-	-	-	1
St. Clair county, total	15	-	-	3	3	9
0 to 19 employees	7	-	-	-	3	4
20 to 99 employees	6	-	-	1	-	5
100 to 249 employees	1	-	-	1	-	-
250 employees and over	1	-	-	1	-	-
Saline county, total	33	-	-	6	25	2
0 to 19 employees	28	-	-	1	25	2
20 to 99 employees	1	-	-	1	-	-
100 to 249 employees	4	-	-	4	-	-
Sangamon county, total	16	-	-	-	12	4
0 to 19 employees	14	-	-	-	11	3
20 to 99 employees	2	-	-	-	1	1
Schuyler county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Illinois--continued						
Scott county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Shelby county, total	5	-	-	-	4	1
0 to 19 employees	5	-	-	-	4	1
Stark county, total	1	-	-	1	-	-
20 to 99 employees	1	-	-	1	-	-
Stephenson county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Tazewell county, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
Union county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
Vermilion county, total	10	-	-	4	1	5
0 to 19 employees	7	-	-	2	1	4
20 to 99 employees	2	-	-	1	-	1
100 to 249 employees	1	-	-	1	-	-
Wabash county, total	97	-	-	-	96	1
0 to 19 employees	93	-	-	-	92	1
20 to 99 employees	4	-	-	-	4	-
Warren county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Washington county, total	23	-	-	1	20	2
0 to 19 employees	19	-	-	-	19	-
20 to 99 employees	4	-	-	1	1	2
Wayne county, total	88	-	-	-	88	-
0 to 19 employees	85	-	-	-	85	-
20 to 99 employees	3	-	-	-	3	-
White county, total	130	-	-	-	129	1
0 to 19 employees	123	-	-	-	122	1
20 to 99 employees	7	-	-	-	7	-
Whiteside county, total	6	-	-	-	1	5
0 to 19 employees	6	-	-	-	1	5
Will county, total	11	-	-	1	-	10
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	6	-	-	-	-	6
100 to 249 employees	1	-	-	1	-	-
Williamson county, total	16	-	-	13	3	-
0 to 19 employees	7	-	-	4	3	-
20 to 99 employees	5	-	-	5	-	-
100 to 249 employees	3	-	-	3	-	-
250 employees and over	1	-	-	1	-	-
Winnebago county, total	9	-	-	-	1	8
0 to 19 employees	8	-	-	-	1	7
20 to 99 employees	1	-	-	-	-	1
Woodford county, total	1	-	-	-	-	1
0 to 10 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

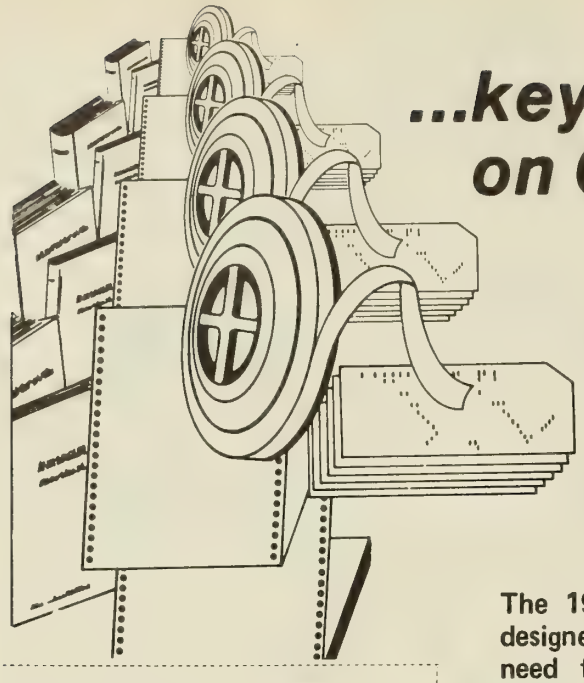
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-870

1967 CENSUS OF Mineral Industries



MIC67(2)-13

AREA STATISTICS

INDIANA

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

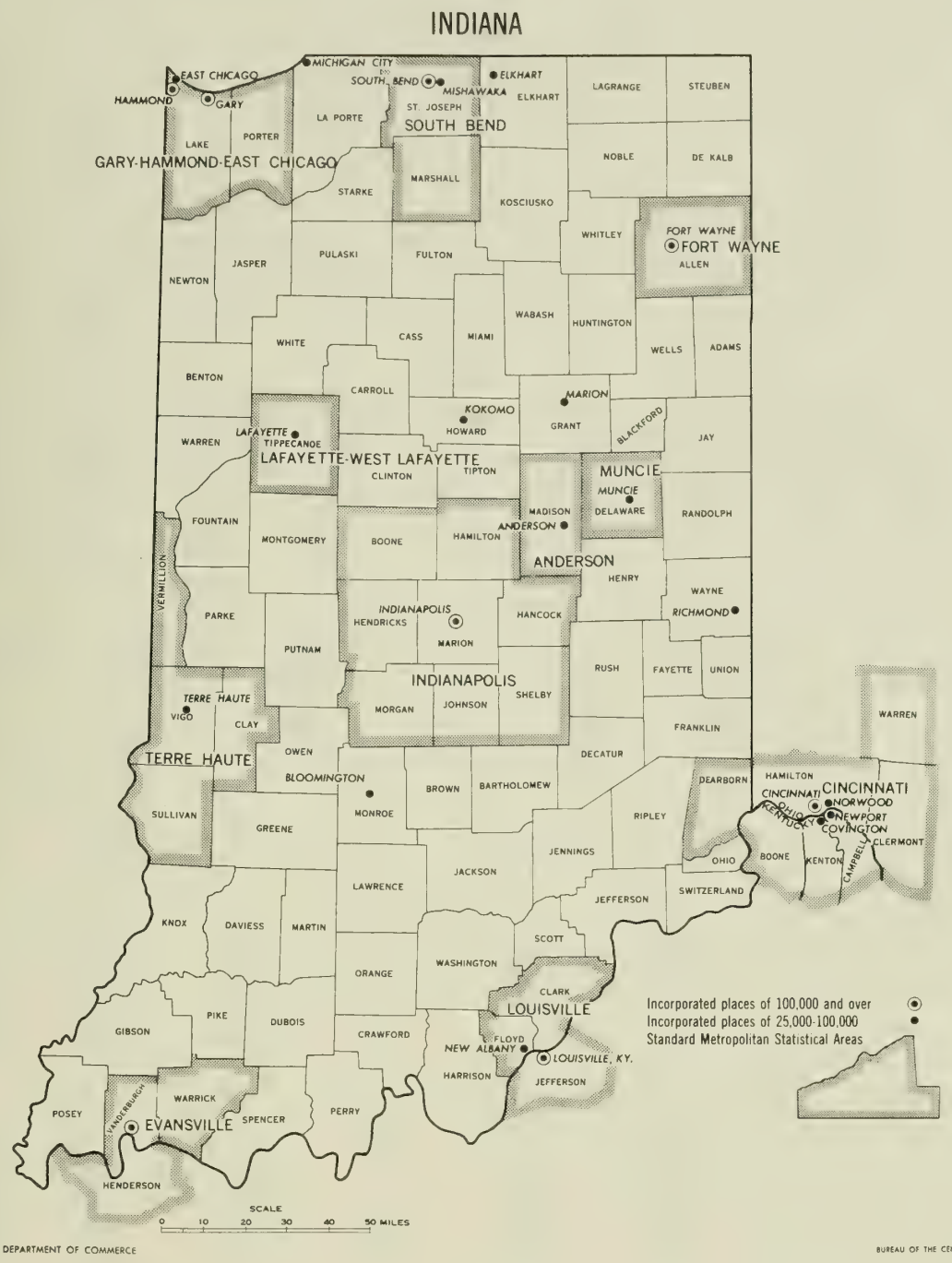

INDIANA
EAST CHICAGO
MICHIGAN CITY
SOUTH BEND
ELKHART
MISHAWAKA
HAMMOND
GARY
ST. JOSEPH
LA PORTE
SOUTH BEND
LAGRANGE
STEUBEN
LAKE
PORTER
GARY-HAMMOND-EAST CHICAGO
STARKE
MARSHALL
KOSCIUSKO
NOBLE
DE KALB
WHITLEY
FORT WAYNE
ALLEN
NEWTON
JASPER
PULASKI
FULTON
WABASH
HUNTINGTON
WELLS
ADAMS
WHITE
CASS
MIAMI
BENTON
CARROLL
MARION
KOKOMO
HOWARD
GRANT
BLACKFORD
JAY
WARREN
LAFAYETTE
TIPPECANOE
LAFAYETTE-WEST LAFAYETTE
CLINTON
TIPTON
MUNCIE
MUNCIE
DELAWARE
RANDOLPH
FOUNTAIN
MONTGOMERY
BOONE
HAMILTON
MADISON
ANDERSON
ANDERSON
HENRY
WAYNE
RICHMOND
VERMILLION
PARKE
INDIANAPOLIS
HENDRICKS
MARION
HANCOCK
PUTNAM
RUSH
FAYETTE
UNION
INDIANAPOLIS
TERRE HAUTE
VIGO
CLAY
MORGAN
JOHNSON
SHELBY
FRANKLIN
WARREN
TERRE HAUTE
OWEN
BLOOMINGTON
DECATUR
BROWN
BARTHOLOMEW
DEARBORN
HAMILTON
CINCINNATI
NORWOOD
NEWPORT
COVINGTON
CLERMONT
SULLIVAN
GREENE
MONROE
RIPLEY
JENNINGS
OHIO
BOONE
KENTON
CAMPBELL
LAWRENCE
JACKSON
JEFFERSON
SWITZERLAND
KNOX
DAVIESS
MARTIN
SCOTT
ORANGE
WASHINGTON
CLARK
LOUISVILLE
PIKE
DUBOIS
GIBSON
CRAWFORD
FLOYD
NEW ALBANY
LOUISVILLE, KY.
HARRISON
JEFFERSON
POSEY
VANDERBURGH
WARRICK
SPENCER
PERRY
EVANSVILLE
HENDERSON
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
SCALE
0 10 20 30 40 50 MILES
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]497	88	6.5	46.7	5.2	10.9	35.5	134.6
1963	[1]728	76	7.3	41.8	5.9	11.8	32.6	107.5
1958	720	95	8.8	43.5	7.1	13.1	32.4	103.0
1954	776	101	9.2	38.2	7.8	14.3	29.9	85.2
Including operations in manufactures:								
1967	535	100	7.5	52.6	6.2	12.7	40.6	149.2
1963	781	88	8.8	48.8	7.2	14.4	38.8	123.4
1958	781	109	10.4	50.6	8.6	15.8	38.5	117.9
1954[2]	815	113	11.0	45.1	9.6	17.9	36.4	98.3
1939[3]	[4]576	(NA)	12.4	15.9	11.4	18.5	13.7	28.1
1919[5]	503	(NA)	28.4	34.3	26.8	(NA)	30.2	44.1
1909[5]	1,035	(NA)	25.1	15.9	24.0	(NA)	14.8	19.2
1902[6]	[4]3,975	(NA)	17.5	11.8	[7]15.9	(NA)	10.5	21.4
Excluding oil and gas extraction industries:								
1967	322	83	6.3	45.6	5.3	11.2	36.6	127.2
1963	428	76	7.3	41.4	6.2	12.6	34.8	98.4
1958	429	95	8.8	43.6	7.4	13.8	34.5	89.1
1954[2]	486	99	9.3	38.8	8.3	15.7	32.7	75.0
1939[3]	[4]453	(NA)	11.7	14.8	10.8	17.6	13.0	27.1
1929[8]	399	(NA)	18.0	26.4	16.7	(NA)	23.4	41.0
1919[5]	372	(NA)	27.9	33.6	26.3	(NA)	29.7	42.1
1909[5]	388	(NA)	22.9	14.8	22.6	(NA)	14.0	16.8
1902[6]	[4]516	(NA)	14.4	9.6	[7]13.5	(NA)	8.8	12.1

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]47.6	([10])	4.4	([10])	166.8	19.7	(NA)
1963	[11]31.3	([11])	7.9	15.9	143.3	19.4	1.9
1958	28.0	2.4	6.0	12.5	136.5	15.3	1.6
1954	22.7	18.4	6.5	12.8	129.7	15.9	1.4
Including operations in manufactures:							
1967	[12]55.4	([12])	([12])	([12])	184.5	20.0	(NA)
1963	[13]35.8	.2	[13]8.0	[14]16.4	163.9	[14]19.9	[14]1.9
1958	[13]30.5	2.4	[13]6.2	[14]12.9	154.1	[14]15.8	[14]1.7
1954[2]	[13]25.5	18.4	[13]6.3	[14]13.3	145.8	[14]16.3	[14]1.5
1939[3]	8.0	(NA)	1.3	(NA)	37.4	(NA)	1.9
1919[5]	8.4	.1	.3	(NA)	52.8	(NA)	[15]6.1
1909[5]	2.4	(Z)	.3	(NA)	21.9	(NA)	(NA)
1902[6]	3.4	(NA)	2.2	(NA)	26.9	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[12]47.8	([12])	[12](NA)	([12])	157.9	17.0	(NA)
1963	[13]26.3	.2	[13]2.5	[14]14.4	126.7	[14]15.6	[14]1.3
1958	[13]24.6	2.4	[13]1.9	[14]10.7	117.9	[14]10.7	[14]1.3
1954[2]	[13]20.4	18.4	[13]1.1	[14]10.9	115.1	[14]10.7	[14]1.1
1939[3]	7.7	(NA)	.1	(NA)	35.0	(NA)	1.8
1929[8]	7.9	(NA)	.1	1.6	49.0	(NA)	3.6
1919[5]	8.0	-	.1	(NA)	50.2	(NA)	[15]5.9
1909[5]	1.9	-	(Z)	(NA)	18.7	(NA)	(NA)
1902[6]	1.2	(NA)	(Z)	(NA)	13.3	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract services operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Indiana--Continued

Standard Notes: - Represent zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963 there were 132 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing limestone at such operations was $1,199 thousand; this value has been included in the value of shipments and value added in mining. For "All operations," includes data for 1 or 2 oil and gas field hauling operations, with receipts for services amounting to less than $417 thousand; such operations were not classified in the mineral industries for 1958 and 1954. For "Excluding oil and gas extraction industries," except for number of establishments, excludes data for 1 mining service establishment.

[4]Represents number of mines and quarries and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand and gravel operations and stone quarries operated as parts of cement and lime establishments. In 1929 there were 58 such sand and gravel establishments with products value at $4,453 thousand; 4 such stone quarries at cement plants with products value at $535 thousand; and 1 such stone quarry at a lime plant. See also footnote 11. For "Excluding oil and gas extraction industries" in 1909, except for number of establishments, excludes data for 1 nonproducing establishment.

[6]Excludes data for sand and gravel, common clay and shale operations, and stone quarries at cement plants. Includes data for lime plants producing lime valued at $312 thousand. For "Excluding oil and gas extraction industries," excludes data for non-producing establishments.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes data for common clay and shale establishments. For 1939, the value of products of such establishments was $154 thousand.

[9]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishments in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909 represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Figures for cost of minerals received for preparation are included with those for cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, clay, and gypsium mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For "All operations" in 1939, the quantity or purchased electric energy amounted to 5 percent of the total kw.-hrs. equivalent of energy used, and for "Excluding oil and gas extraction industries" in 1929, to only 3 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	497	88	6.5	46.7	5.2	10.9	35.5	134.6	52.2	166.8	19.7	7.3	107.5
12	Bituminous coal and lignite mining	52	20	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.0	46.2
121	Bituminous coal and lignite mining	52	20	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	52	20	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.0	46.0
13	Oil and gas extraction	213	17	1.2	7.0	.8	1.5	4.0	22.0	7.6	26.6	3.0	1.5	25.0
131	Crude petroleum and natural gas	151	9	.8	4.4	.4	.9	2.2	18.0	(D)	21.3	(D)	1.0	21.7
1312	Crude petroleum	147	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	21.6
138	Oil and gas field services	62	8	.5	2.6	.4	.7	1.8	4.0	(D)	5.3	(D)	.5	3.3
1381	Drilling oil and gas wells	35	4	.3	1.2	.2	.4	1.0	2.6	1.2	3.4	.4	.4	2.6
1389	Oil and gas field services, n.e.c.	24	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.5
14	Nonmetallic minerals, except fuels	232	51	3.1	20.2	2.5	5.6	15.3	51.1	22.6	64.9	8.8	2.8	36.3
141	Dimension stone	13	5	.3	1.9	.3	.6	1.5	3.5	.7	4.1	.2	1.2	2.0
1412	Dimension limestone	12	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.8
142	Crushed and broken stone	77	28	1.5	10.2	1.2	2.8	7.7	26.9	12.1	34.1	4.9	1.4	17.0
1422	Crushed and broken limestone	74	27	1.4	9.4	1.2	2.8	7.6	26.9	12.1	34.1	5.0	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	3	1	.1	.8	-	-	-	-	-	-	-	(D)	(D)
144	Sand and gravel	129	15	1.1	7.3	.9	1.9	5.4	19.0	8.7	24.3	3.4	1.2	16.0
1442	Construction sand and gravel	126	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay and related minerals	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.9

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	38	12	1.0	5.9	1.0	1.8	5.1	14.6	3.4	17.7	[2]0.3	1.4	15.8
1411	Dimension stone	10	D	0.8	4.8	0.7	1.4	4.0	8.0	2.1	9.7	0.3	1.2	7.6
144	Sand and gravel	D	-	(Z)	0.2	(Z)	0.1	0.2	0.5	0.2	0.7	(NA)	0.1	1.9

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Indiana:													
	Establishments.....number..	497	496	130	26	29	75	162	5	146	11	3	201	1
	Employees..... 1,000..	6.5	(D)	1.1	.3	(D)	(D)	4.2	.4	3.7	.1	(D)	1.2	(D)
	Value added in mining..mil.dol..	134.6	(D)	228	2.7	(D)	(D)	104.2	6.3	95.9	2.0	(D)	7.4	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	52	52	26	25	1	-	22	4	18	-	-	4	-
	Employees..... 1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining...mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	52	52	26	25	1	-	22	4	18	-	-	4	-
	Employees..... 1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining...mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	213	212	75	-	-	75	-	-	-	-	-	137	1
	Employees..... 1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining...mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	151	150	75	-	-	75	-	-	-	-	-	75	1
	Employees..... 1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining...mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	62	62	-	-	-	-	-	-	-	-	-	62	-
	Employees.....1,000..	.5	.5	-	-	-	-	-	-	-	-	-	.5	-
	Value added in mining...mil.dol..	4.0	4.0	-	-	-	-	-	-	-	-	-	4.0	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	232	232	29	1	28	-	140	1	128	11	3	60	-
	Employees.....1,000..	3.1	3.1	.3	(D)	(D)	-	(D)	(D)	(D)	.1	(D)	(D)	-
	Value added in mining...mil.dol..	51.1	51.1	3.5	(D)	(D)	-	(D)	(D)	(D)	2.0	(D)	(D)	-
141	Dimension stone:													
	Establishments.....number.	13	13	12	-	12	-	1	-	1	-	-	-	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining...mil.dol..	3.5	3.5	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	77	77	1	-	1	-	70	1	67	2	2	4	-
	Employees.....1,000..	1.5	1.5	(D)	-	(D)	-	1.4	(D)	(D)	(D)	(D)	(D)	-
	Value added in mining...mil.dol..	26.9	26.9	(D)	-	(D)	-	26.7	(D)	(D)	(D)	(D)	(D)	-
144	Sand and gravel:													
	Establishments.....number..	129	129	10	-	10	-	66	-	57	9	1	52	-
	Employees.....1,000..	1.1	1.1	(D)	-	(D)	-	.9	-	(D)	(D)	(D)	.2	-
	Value added in mining...mil.dol..	19.0	19.0	(D)	-	(D)	-	16.3	-	(D)	(D)	(D)	1.7	-
145	Clay and related minerals:													-
	Establishments.....number..	5	5	3	-	3	-	1	-	1	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining...mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining...mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments..... number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining...mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	4	4	2	-	2	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining...mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	497	728	Cost of supplies, total.....million dollars..	52.0	55.2
With 0 to 19 employees.....do....	409	652	Supplies used, minerals received for preparation, and purchased machinery.....do....	38.7	(NA)
With 20 to 99 employees.....do....	78	65	Cost of resales.....do....	.7	(NA)
With 100 or more employees.....do....	10	11	Purchased fuels consumed.....do....	3.1	(NA)
All employees (average for year).....1,000..	6.5	7.3	Electric energy:		
Payroll (all employees), total for year.....million dollars..	46.7	41.8	Quantity purchased.....million kw.-hrs..	383.7	(NA)
			Cost.....million dollars..	5.0	(NA)
			Generated less sold.....million kw.-hrs..	.9	(NA)
			Contract work.....million dollars..	4.4	7.9
Production, development, and exploration workers:			Value of shipments and receipts (including resales), total.....do....	166.8	143.3
Average for the year.....1,000..	5.2	5.9	Value of resales.....do....	.8	(NA)
March.....do....	5.0	(NA)			
May.....do....	5.3	(NA)	Value added in mining.....do....	134.6	107.5
August.....do....	5.4	(NA)			
November.....do....	5.3	(NA)	Capital expenditures (except land and mineral rights), total.....do....	19.7	19.4
Man-hours.....millions..	10.9	11.8	Mineral development and exploration.....do....	1.7	1.5
Wages.....million dollars..	35.5	32.6	New structures and additions.....do....	1.9	17.9
Supplemental labor cost not included in payroll.....do..	5.3	(NA)	New machinery and equipment.....do....	14.3	
			Used plant and equipment.....do....	1.7	
			Mineral development and exploration expenditures, total.....do....	3.6	(NA)
Legally required expenditures, including Social Security contributions.....do..	2.4	(NA)	Capitalized.....do....	1.7	1.5
Payments for voluntary programs.....do..	3.0	(NA)	Expensed.....do....	1.9	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Indiana, total	497	88	6.5	46.7	5.2	10.9	35.5	134.6	52.0	166.8	19.7	7.3	107.5
	COUNTIES[2]													
	Allen county, total	10	2	.1	1.2	.1	.2	1.0	2.5	1.5	3.4	.5	.1	1.1
14	Nonmetallic minerals, except fuel	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.9
	Clark county, total	5	3	.1	.8	.1	.2	.6	2.2	.8	2.8	.3	.1	1.5
14	Nonmetallic minerals, except fuel	5	3	.1	.8	.1	.2	.6	2.2	.8	2.8	.3	.1	1.5
	Clay county, total	10	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.2
12	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gibson county, total	50	3	.3	2.0	.2	.5	1.7	6.2	2.9	7.0	1.0	.3	5.9
12	Bituminous coal and lignite mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	47	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	34	2	.1	.8	.1	.2	.6	4.2	1.3	5.2	.4	.2	5.4
	Greene county, total	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.6
12	Bituminous coal and lignite mining	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Harrison county, total	7	3	.1	.5	.1	.2	.4	1.1	.7	1.5	.2	(D)	(D)
	Knox county, total	20	2	.1	.5	.1	.2	.5	1.1	.4	1.3	.2	.2	1.1
	Marion county, total	17	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.6
	Nonmetallic minerals, except fuel	12	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Sand and gravel	9	3	.2	1.3	.1	.3	1.0	3.6	2.0	4.6	1.0	(D)	(D)
	Monroe county, total	11	6	.4	2.2	.3	.6	1.7	4.3	1.4	5.4	.4	.2	2.0
14	Nonmetallic minerals, except fuel	10	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.0
141	Dimension stone	8	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.5
	Owen county	6	1	.1	.9	.1	.2	.8	3.0	1.5	3.7	.8	.1	2.0
	Pike county, total	22	3	.4	3.8	.4	.7	3.2	11.2	3.5	14.2	.5	.5	10.4
12	Bituminous coal and lignite mining	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Posey county, total	54	2	.3	1.3	.2	.4	1.0	7.5	1.9	8.5	.9	.4	11.7
13	Oil and gas extraction	53	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Crude petroleum and natural gas	38	1	.1	.8	.1	.2	.6	6.7	1.7	7.6	.8	.2	10.4
	Oil and gas field services	15	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Indiana--Continued													
	COUNTIES[2]--Continued													
	Spencer county, total.....	16	1	.2	.9	.2	.3	.8	2.2	.9	2.8	.3	.1	.9
12	Bituminous coal and lignite mining.....	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Sullivan county, total.....	15	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	6.2
12	Bituminous coal and lignite mining.....	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Vanderburgh county, total.....	81	7	.5	3.5	.3	.4	1.1	2.7	1.2	3.3	.6	.3	3.4
13	Oil and gas extraction.....	79	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	59	3	.3	2.1	.1	.2	.4	1.8	.8	2.3	.4	.2	2.8
138	Oil and gas field services.....	20	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Vigo county.....	17	4	.2	1.3	.1	.3	1.0	2.7	1.3	3.7	.3	1.0	8.4
	Warrick county, total.....	13	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	14.6
12	Bituminous coal and lignite mining.....	8	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	14.4
121	Bituminous coal and lignite mining.....	8	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operations in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Indiana, total	497	-	-	52	213	232
0 to 4 employees	230	-	-	15	143	72
5 to 9 employees	90	-	-	11	37	42
10 to 19 employees	89	-	-	6	16	67
20 to 49 employees	65	-	-	5	16	44
50 to 99 employees	13	-	-	6	1	6
100 to 249 employees	10	-	-	9	-	1
Adams county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Allen county, total	10	-	-	-	3	7
0 to 19 employees	8	-	-	-	3	5
20 to 99 employees	2	-	-	-	-	2
Bartholomew county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Benton county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Blackford county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Boone county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Carroll county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cass county, total	5	-	-	-	1	4
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	2	-	-	-	-	2
Clark county, total	5	-	-	-	-	5
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	3	-	-	-	-	3
Clay county, total	10	-	-	3	2	5
0 to 19 employees	9	-	-	2	2	5
100 to 249 employees	1	-	-	1	-	-
Crawford county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Daviess county, total	5	-	-	-	4	1
0 to 19 employees	5	-	-	-	4	1
Dearborn county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Decatur county, total	5	-	-	-	2	3
0 to 19 employees	5	-	-	-	2	3
De Kalb county, total	5	-	-	-	1	4
0 to 19 employees	5	-	-	-	1	4
Delaware county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Dubois county, total	9	-	-	3	6	-
0 to 19 employees	9	-	-	3	6	-
Elkhart county, total	4	-	-	-	1	3
1 to 19 employees	4	-	-	-	1	3
Fayette county, total	1	-	-	-	1	-
1 to 19 employees	1	-	-	-	1	-
Floyd county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Fountain county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Indiana--Continued						
Franklin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Fulton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Gibson county, total	50	-	-	1	47	2
0 to 19 employees	47	-	-	-	45	2
20 to 99 employees	2	-	-	-	2	-
100 to 249 employees	1	-	-	1	-	-
Grant county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Greene county, total	7	-	-	6	-	1
0 to 19 employees	6	-	-	5	-	1
100 to 249 employees	1	-	-	1	-	-
Hamilton county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Hancock county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Harrison county, total	7	-	-	-	1	6
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	3	-	-	-	1	2
Hendricks county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Henry county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Howard county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	--	3
20 to 99 employees	1	-	-	-	-	1
Huntington county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Jackson county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Jasper county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Jay county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Jefferson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Jennings county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Johnson county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Knox county, total	20	-	-	5	14	1
0 to 19 employees	18	-	-	3	14	1
20 to 99 employees	2	-	-	2	-	-
Kosciusko county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Lagrange county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Lake county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Indiana--Continued						
Laporte county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Lawrence county, total	8	-	-	-	3	5
0 to 19 employees	7	-	-	-	3	4
20 to 99 employees	1	-	-	-	-	1
Madison county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Marion county, total	17	-	-	4	1	12
0 to 19 employees	12	-	-	3	1	8
20 to 99 employees	5	-	-	1	-	4
Marshall county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Martin county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Miami county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Monroe county, total	11	-	-	-	1	10
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	5	-	-	-	-	5
100 to 249 employees	1	-	-	-	-	1
Montgomery county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Morgan county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Newton county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Noble county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Orange county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Owen county, total	6	-	-	2	-	4
0 to 19 employees	5	-	-	1	-	4
20 to 99 employees	1	-	-	1	-	-
Parke county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Perry county, total	6	-	-	-	4	2
0 to 19 employees	5	-	-	-	4	1
20 to 99 employees	1	-	-	-	-	1
Pike county, total	22	-	-	6	16	-
0 to 19 employees	19	-	-	3	16	-
20 to 99 employees	1	-	-	1	-	-
100 to 249 employees	2	-	-	2	-	-
Porter county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Posey county, total	54	-	-	-	53	1
0 to 19 employees	52	-	-	-	51	1
20 to 99 employees	2	-	-	-	2	-
Pulaski county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Putnam county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Indiana--Continued						
Randolph county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Ripley county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Rush county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
St Joseph county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Scott county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Shelby county, total	6	-	-	-	-	6
0 to 19 employees	6	-	-	-	-	6
Spencer county, total	16	-	-	4	12	-
0 to 19 employees	15	-	-	3	12	-
100 to 249 employees	1	-	-	1	-	-
Starke county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Steuben county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Sullivan county, total	15	-	-	3	9	3
0 to 19 employees	13	-	-	1	9	3
100 to 249 employees	2	-	-	2	-	-
Switzerland county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Tippecanoe county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Vanderburgh county, total	81	-	-	-	79	2
0 to 19 employees	74	-	-	-	72	2
20 to 99 employees	7	-	-	-	7	-
Vermillion county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Vigo county, total	17	-	-	2	9	6
0 to 19 employees	13	-	-	-	9	4
20 to 99 employees	4	-	-	2	-	2
Wabash county, total	4	-	-	-	2	2
0 to 19 employees	4	-	-	-	2	2
Warren county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Warrick county, total	13	-	-	8	4	1
0 to 19 employees	7	-	-	3	4	-
20 to 99 employees	5	-	-	4	-	1
100 to 249 employees	1	-	-	1	-	-
Washington county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wayne county, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Indiana--Continued						
Wells county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
White county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Whitley county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-893

1967 CENSUS OF Mineral Industries



MIC67(2)-14

AREA STATISTICS

IOWA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

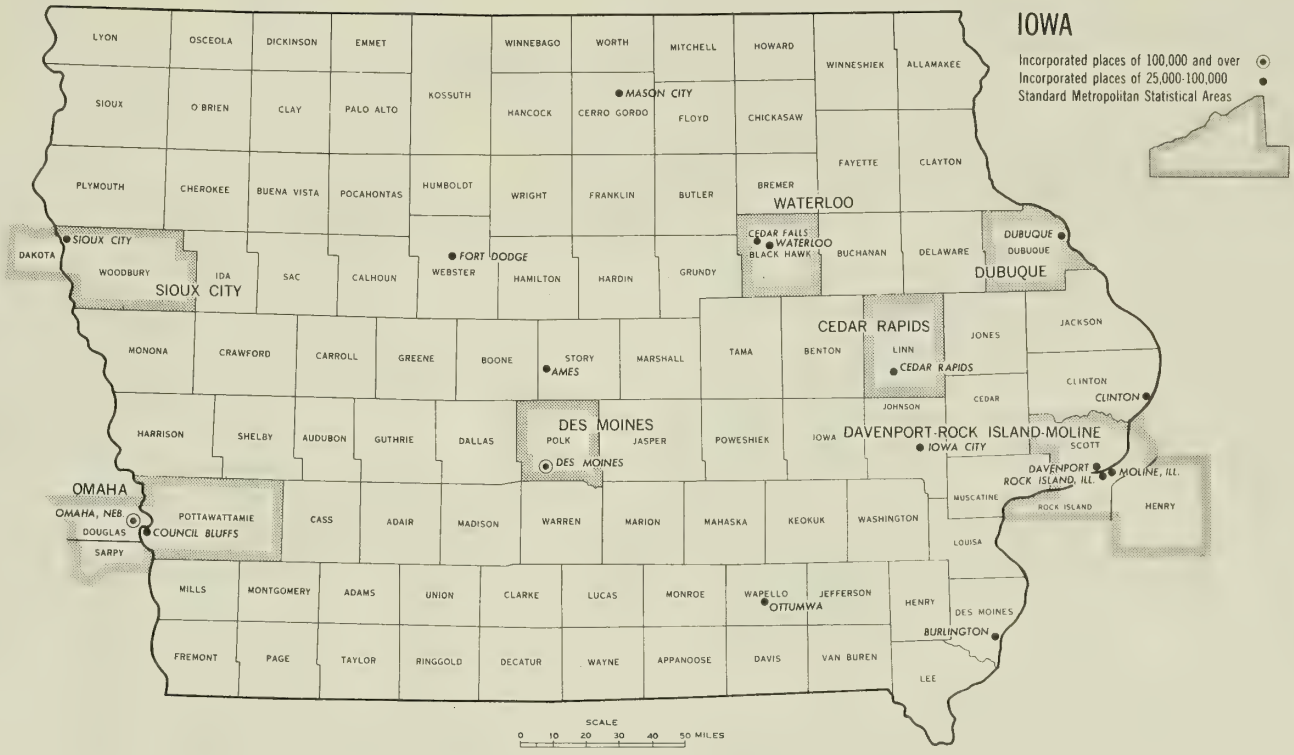
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]240	42	2.8	18.2	2.4	5.7	14.2	43.6
1963	[1]295	32	2.7	13.5	2.3	5.3	10.5	33.2
1958	293	40	2.9	12.5	2.5	5.5	9.8	32.7
1954	329	26	2.6	9.1	2.3	5.3	7.9	21.5
Including operations in manufactures:								
1967	275	48	3.1	20.0	2.7	6.4	16.0	53.5
1963	343	39	3.0	15.0	2.6	5.9	12.1	42.0
1958	335	44	3.1	13.6	2.7	5.9	10.9	41.1
1954[2]	364	34	3.0	10.5	2.7	6.0	9.2	27.3
1939	[3]383	(NA)	5.9	6.1	5.6	8.0	5.5	9.0
1929[4]	240	(NA)	7.6	10.4	7.2	(NA)	9.3	14.3
1919[5]	198	(NA)	11.8	13.8	11.3	(NA)	12.5	15.6
1909[5]	402	(NA)	17.0	11.4	16.5	(NA)	10.9	12.3
1902[5]	[3]629	(NA)	11.1	7.3	[6]10.4	(NA)	6.8	8.7

Kind of operation and year	Selected expenses				Value of shipments and receipts[7]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[8]21.3	([8])	3.5	([8])	61.4	7.0	(NA)
1963	11.5	.6	1.7	3.4	44.9	5.5	.6
1958	11.8	.4	2.1	4.5	45.1	6.4	.9
1954	8.6	(Z)	1.5	3.7	31.6	3.8	.7
Including operations in manufactures:							
1967	[9]26.5	([9])	([9])	([9])	72.9	(NA)	(NA)
1963	[10]13.3	.6	[10]1.7	[11]3.4	55.4	[11]5.5	[11].6
1958	[10]12.9	.4	[10]2.1	[11]4.5	54.6	[11]6.4	[11].9
1954[2]	[10]10.4	(Z)	[10]1.5	[11]3.7	39.2	[11]3.8	[11].7
1939	1.8	(NA)	.1	(NA)	10.8	(NA)	.2
1929[4]	2.6	(NA)	(Z)	.4	16.9	(NA)	.8
1919[5]	2.8	-	(Z)	(NA)	18.5	(NA)	[12]1.6
1909[5]	1.5	-	(Z)	(NA)	13.9	(NA)	(NA)
1902[5]	1.0	(NA)	(Z)	(NA)	9.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract services operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (2) Less than $50 thousand or so employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 35 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Represents number of mines and quarries.

[4]Excludes data for common clay and shale and (except for 1902) peat mining operations. There were 20 such mines in 1939 with products valued at $271 thousand. Also, for 1929 and 1919, excludes data for one nonproducing establishment.

[5]Excludes data for sand and gravel mining operations and stone quarries operated as parts of cement establishments. There were 42 such establishments in 1929 with products valued at $3,084 thousand. See also footnote 4.

[6]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost production and excludes this duplication.

[8]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[9]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[10]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[11]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments and for 1963 and 1958 data for dimension stone operations in manufactures.

[12]Excludes purchased electric energy. For 1939, the quantity of purchased electric energy amounted to only 3 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	240	42	2.8	18.2	2.4	5.7	14.2	43.6	24.8	61.4	7.0	2.7	33.2
12	Bituminous coal and lignite mining	21	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.5
121	Bituminous coal and lignite mining	21	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.4
1211	Bituminous coal	21	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.4
14	Nonmetallic minerals, except fuels	214	39	2.6	16.9	2.1	5.2	12.9	40.4	23.2	57.1	6.5	2.4	29.7
142	Crushed and broken stone	117	30	1.9	12.7	1.5	3.9	9.4	30.5	17.6	43.0	5.1	1.6	20.5
1422	Crushed and broken limestone	114	29	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	90	8	.6	3.9	.6	1.3	3.3	9.2	5.3	13.1	1.3	.7	8.8
1442	Construction sand and gravel	89	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	35	6	0.3	1.8	0.3	0.7	1.8	9.9	1.7	11.5	(NA)	0.3	8.8
142 (1422)	Crushed and broken stone (limestone)	6	4	0.1	0.9	0.1	0.3	0.9	4.0	1.0	5.0	(NA)	(NA)	(NA)
144	Sand and gravel	8	1	0.1	0.2	0.1	0.1	0.2	0.7	0.1	0.8	(NA)	(Z)	0.5
145 (1459)	Clay and related minerals, n.e.c.	15	-	(Z)	0.2	(Z)	0.1	0.2	0.3	0.3	0.6	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Iowa:													
	Establishments.....Number...	240	240	28	11	17	-	166	8	148	10	2	44	-
	Employees..... 1,000...	2.8	2.8	.2	(Z)	.1	-	2.4	(D)	2.1	(D)	(D)	(D)	-
	Value added in mining..mil.dol.	43.6	43.6	2.1	.5	1.6	-	39.8	(D)	35.5	(D)	(D)	(D)	-
10	Metal mining:													
	Establishments.....Number...	3	3	3	1	2	-	-	-	-	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-
101	Iron ores:													
	Establishments.....number...	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
102	Copper ores:													
	Establishments.....number...	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
104	Gold and silver ores:													
	Establishments.....number...	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number...	21	21	10	10	-	-	11	4	7	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	(D)	-	-	.2	.1	.1	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	(D)	-	-	2.6	1.2	1.4	-	-	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number...	21	21	10	10	-	-	11	4	7	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	(D)	-	-	.2	.1	.1	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	(D)	-	-	2.6	1.2	1.4	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees..... 1,000	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol.	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
138	Oil and gas field services:													
	Establishments.....number.	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000.	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol.	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number...	214	214	15	-	15	-	155	4	141	10	2	42	-
	Employees..... 1,000...	2.6	2.6	(D)	-	(D)	-	2.2	(D)	2.0	(D)	(D)	.2	-
	Value added in mining..mil.dol.	40.4	40.4	(D)	-	(D)	-	37.2	(D)	34.1	(D)	(D)	1.2	-
142	Crushed and broken stone:													
	Establishments.....number...	117	117	6	-	6	-	106	4	100	2	2	3	-
	Employees..... 1,000...	1.9	1.9	.1	-	.1	-	1.7	(D)	(D)	(D)	(D)	(D)	-
	Value added in mining..mil.dol.	30.5	30.5	.8	-	.8	-	29.3	(D)	(D)	(D)	(D)	(D)	-
144	Sand and gravel:													
	Establishments.....number...	90	90	5	-	5	-	47	-	39	8	-	38	-
	Employees..... 1,000...	.6	.6	(D)	-	(D)	-	(D)	-	.4	(D)	-	.1	-
	Value added in mining..mil.dol.	9.2	9.2	(D)	-	(D)	-	(D)	-	6.1	(D)	-	1.2	-
145	Clay and related minerals:													
	Establishments.....number...	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Iowa--Continued													
14	Nonmetallic minerals, except fuels--Continued													
148	Nonmetallic minerals services:													
	Establishments.....number...	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees..... 1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol.	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number...	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees..... 1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol.	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	240	295	Cost of supplies, total.....million dollars..	24.8	17.2
With 0 to 19 employees.....do....	198	263	Supplies used, minerals received for preparation, and purchased machinery.....do....	15.6	(NA)
With 20 to 99 employees.....do....	41	32	Cost of resales.....do....	1.9	(NA)
With 100 or more employees.....do....	1	-	Purchased fuels consumed.....do....	2.7	(NA)
All employees (average for year).....1,000..	2.8	2.7	Electric energy:		
Payroll (all employees), total for year.....million dollars..	18.2	13.5	Quantity purchased.....million kw.-hrs..	57.0	(NA)
			Cost.....million dollars..	1.0	(NA)
			Generated less sold.....million kw.-hrs..	11.5	(NA)
			Contract work.....million dollars..	3.5	1.7
Production, development, and exploration workers:					
Average for the year.....1,000..	2.4	2.3	Value of shipments and receipts (including resales), total.....do....	61.4	44.9
March.....do....	2.1	(NA)	Value of resales.....do....	2.1	(NA)
May.....do....	2.4	(NA)			
August.....do....	2.6	(NA)			
November.....do....	2.3	(NA)	Value added in mining.....do....	43.6	33.2
Man-hours.....millions..	5.7	5.3	Capital expenditures (except land and mineral rights), total.....do....	7.0	5.5
Wages.....million dollars..	14.2	10.5	Mineral development and exploration.....do....	.3	.2
			New structures and additions.....do....	.4	
Supplemental labor cost not included in payroll.....do..	1.4	(NA)	New machinery and equipment.....do....	5.4	5.2
			Used plant and equipment.....do....	1.0	
			Mineral development and exploration expenditures, total.....do....	.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	1.0	(NA)	Capitalized.....do....	.3	.2
Payments for voluntary programs.....do..	.4	(NA)	Expensed.....do....	.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Iowa, total	240	42	2.8	18.2	2.4	5.7	14.2	43.6	24.8	61.4	7.0	2.7	33.2
	COUNTIES[2]													
	Hardin county, total	5	3	.2	1.5	.2	.6	1.2	3.2	2.0	4.8	.4	.1	1.8
14	Nonmetallic minerals, except fuels	5	3	.2	1.5	.2	.6	1.2	3.2	2.0	4.8	.4	.1	1.8
142	Crushed and broken stone	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Linn county, total	9	3	.2	1.7	.1	.3	.8	2.4	1.5	3.4	.5	.2	2.0
14	Nonmetallic minerals, except fuels	9	3	.2	1.7	.1	.3	.8	2.4	1.5	3.4	.5	.2	2.0
142	Crushed and broken stone	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.7
	Polk county, total	10	1	.1	.7	.1	.2	.5	1.5	.8	2.1	.2	.1	1.5
14	Nonmetallic minerals, except fuels	7	1	.1	.7	.1	.2	.5	1.5	.8	2.1	.2	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Iowa, total	240	3	-	21	2	214
0 to 4 employees	88	3	-	7	2	76
5 to 9 employees	45	-	-	5	-	40
10 to 19 employees	65	-	-	6	-	59
20 to 49 employees	36	-	-	3	-	33
50 to 99 employees	5	-	-	-	-	5
100 to 249 employees	1	-	-	-	-	1
Adair county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Adams county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Allamakee county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Appanoose county, total	6	-	-	4	-	2
0 to 19 employees	4	-	-	4	-	-
20 to 99 employees	2	-	-	-	-	2
Benton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Black Hawk county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Boone county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Bremer county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Buchanan county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Buena Vista county, total	2	-	-	-	-	2
0 to 19 employees,	2	-	-	-	-	2
Butler county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Calhoun county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Carroll county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cass county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cedar county, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Cerro Gordo county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Cherokee county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Chickasaw county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Clarke county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Clay county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Clayton county, total	6	1	-	-	-	5
0 to 19 employees	6	1	-	-	-	5

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Iowa--Continued						
Clinton county, total	5	1	-	-	-	4
0 to 19 employees	4	1	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Crawford county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Dallas county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Decatur county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Delaware county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Des Moines county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Dickinson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Dubuque county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Emmet county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Fayette county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Floyd county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Franklin county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Fremont county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Greene county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Guthrie county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hancock county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hardin county, total	5	-	-	-	-	5
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Harrison county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Henry county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Howard county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Humboldt county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Iowa county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Jackson county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Iowa--Continued						
Jasper county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Jefferson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Johnson county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Jones county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Keokuk county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Lee county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Linn county, total	9	-	-	-	-	9
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	3	-	-	-	-	3
Louisa county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Lucas county, total	2	-	-	2	-	-
0 to 19 employees	2	-	-	2	-	-
Lyon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Madison county, total	7	-	-	-	-	7
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	2	-	-	-	-	2
Mahaska county, total	7	-	-	4	-	3
0 to 19 employees	6	-	-	3	-	3
20 to 99 employees	1	-	-	1	-	-
Marion county, total	10	-	-	6	-	4
0 to 19 employees	9	-	-	5	-	4
20 to 99 employees	1	-	-	1	-	-
Marshall county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Mitchell county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Monona county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Monroe county, total	3	-	-	2	-	1
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	1	-	-
Montgomery county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Muscatine county, total	3	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	3
Obrien county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Osceola county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Page county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Palo Alto county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Iowa--Continued						
Plymouth county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Pocahontas county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Polk county, total	10	-	-	-	3	7
0 to 19 employees	9	-	-	-	3	6
20 to 99 employees	1	-	-	-	-	1
Pottawattamie county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Poweshiek county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Sac county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Scott county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Shelby county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Sioux county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Story county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Tama county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Taylor county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Union county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Van Buren county, total	3	-	-	1	-	2
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	-	-	1
Wapello county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Warren county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Washington county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Webster county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Winneshiek county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Woodbury county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Worth county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Wright county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

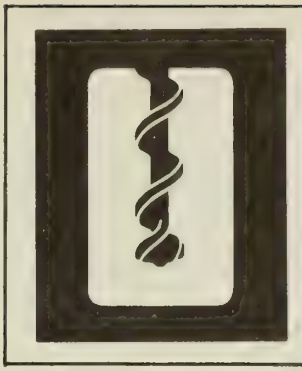
In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-888

1967 CENSUS OF Mineral Industries



MIC67(2)-15

AREA STATISTICS

KANSAS

Issued March 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

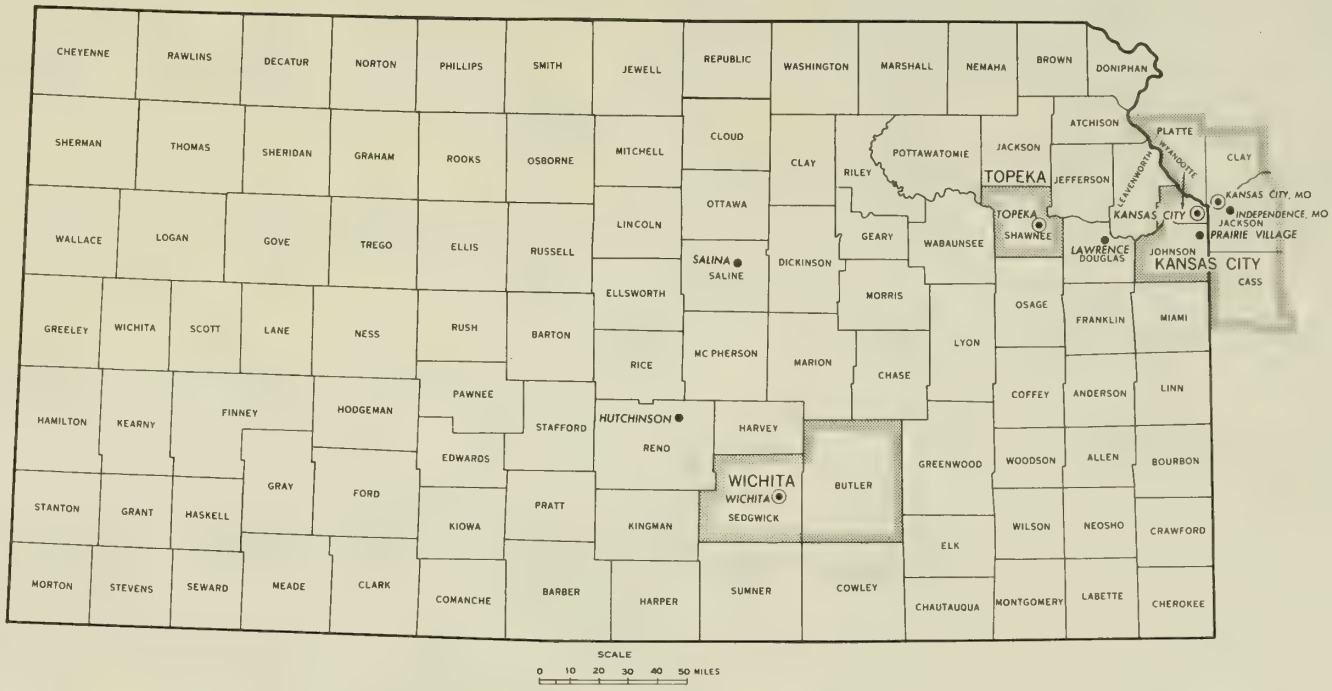
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

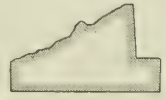
Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



KANSAS

Incorporated places of 100,000 and over ◉
Incorporated places of 25,000-100,000 ●
Standard Metropolitan Statistical Areas



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,115	147	10.6	65.2	8.7	17.5	48.7	431.8
1963	[1]1,809	170	14.1	72.5	11.5	23.3	55.8	433.4
1958	1,599	189	15.8	73.0	12.6	25.1	53.5	378.4
1954	1,661	216	17.7	70.7	14.9	30.0	56.9	358.7
Including operations in manufactures:								
1967	1,139	150	10.9	66.7	9.0	18.0	50.2	438.6
1963	1,852	173	14.4	73.5	11.8	23.8	56.7	438.7
1958	1,632	194	16.1	74.2	12.9	25.6	54.6	384.9
1954[2]	1,689	221	18.0	72.0	15.3	30.8	58.1	362.8
1939[3]	[4]956	(NA)	15.5	20.1	13.8	23.2	16.2	68.5
1919[5]	827	(NA)	18.0	25.4	16.2	(NA)	22.0	48.4
1909[5]	692	(NA)	15.0	10.3	14.4	(NA)	9.7	16.0
1902[6]	[4]462	(NA)	9.3	6.2	[7]8.7	(NA)	5.7	8.9
Excluding oil and gas extraction industries:								
1967	171	25	1.8	10.9	1.6	3.3	9.1	31.0
1963	286	26	2.2	11.2	1.9	4.0	9.3	27.3
1958	237	34	2.1	10.1	1.8	3.7	7.9	25.4
1954[2]	296	37	3.0	11.6	2.6	5.6	9.7	25.7
1939	[4]216	(NA)	5.5	5.6	5.2	9.3	4.9	11.2
1929[8]	261	(NA)	7.7	9.5	7.3	(NA)	8.5	17.3
1919[5]	204	(NA)	10.5	13.5	9.9	(NA)	12.4	17.5
1909[5]	475	(NA)	13.8	9.5	13.3	(NA)	9.1	10.7
1902[6]	[4]393	(NA)	9.0	6.0	[7]8.5	(NA)	5.5	8.5

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]222.8	([10])	34.2	([10])	636.2	52.6	(NA)
1963	75.1	99.6	69.0	30.1	615.1	92.0	11.9
1958	77.6	56.1	56.1	31.9	532.7	67.3	10.8
1954	68.4	[12]2.9	64.6	44.7	456.1	83.2	11.8
Including operations in manufactures:							
1967	[11]257.9	([11])	([11])	([11])	643.9	(NA)	(NA)
1963	[13]76.0	99.6	[13]39.0	[14]30.1	621.4	[14]92.0	[14]11.9
1958	[13]78.5	56.1	[13]56.1	[14]31.9	540.1	[14]67.3	[14]10.8
1954[2]	[13]69.6	[12]2.9	[13]64.6	[14]44.7	461.4	[14]83.3	[14]11.8
1939[3]	8.1	(NA)	12.4	(NA)	89.1	(NA)	3.8
1919[5]	37.6	.3	4.1	(NA)	90.3	(NA)	[15]5.3
1909[5]	1.9	.4	.4	(NA)	18.7	(NA)	(NA)
1902[6]	1.5	(NA)	.3	(NA)	10.7	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[11]10.3	([11])	([11])	([11])	38.2	(NA)	(NA)
1963	[13]8.7	.2	[13]1.2	[14]7.3	36.4	[14]8.4	[14].6
1958	[13]7.0	(Z)	[13].7	[14]2.1	32.7	[14]2.5	.4
1954[2]	[13]8.7	1.3	[13]1.1	[14]2.5	36.9	[14]2.3	[14]1.0
1939	3.3	(NA)	.1	(NA)	14.5	(NA)	.4
1929[8]	5.0	(NA)	.2	1.0	22.5	(NA)	.7
1919[5]	4.2	(Z)	.1	(NA)	21.8	(NA)	[15]1.7
1909[5]	1.1	.1	.1	(NA)	12.0	(NA)	(NA)
1902[6]	1.0	(NA)	.1	(NA)	9.6	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Kansas--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 386 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Includes data for 4 or less machine-shop contractors with receipts for services amounting to less than $227 thousand. Such contractors were not included in the 1958 and 1954 minerals censuses.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand, gravel, common clay, and shale mining operations and for stone quarries operated as parts of cement and lime plants. In 1939, there were 54 such mining operations with products valued at $1,235 thousand.

[6]Includes data for 2 cement plants and for lime plants producing lime valued at $7 thousand.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes data for one nonproducing operation.

[9]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958 excludes the value of residue gas from natural gas liquids plants.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Excludes the cost of natural gas received for processing, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[13]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For "All operations" in 1939, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hrs. equivalent of energy used; and for "Excluding oil and gas extraction industries" in 1929, to 9 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,115	147	10.6	65.2	8.7	17.5	48.7	431.8	257.0	636.2	52.6	14.1	433.4
12	Bituminous coal and lignite mining	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	(NA)
13	Oil and gas extraction	968	125	9.1	55.8	7.4	14.7	41.1	407.6	247.6	605.7	49.6	12.2	411.4
1311	Crude petroleum and natural gas	522	76	5.3	33.4	4.0	7.7	22.0	319.2	88.0	366.5	40.7	7.4	350.7
	Crude petroleum	468	69	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	6.6	276.3
	Natural gas	54	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	74.4
1321	Natural gas liquids	19	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	16.5
138	Oil and gas field services	413	43	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.5	44.1
1381	Drilling oil and gas wells	129	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.3	26.0
1382	Oil and gas exploration services	17	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.1
1389	Oil and gas field services, n.e.c.	267	26	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.0	16.1
14	Nonmetallic minerals, except fuels	150	19	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	17.4
142	Crushed and broken stone	65	12	.6	3.7	.6	1.2	3.1	10.6	4.3	13.5	1.4	.8	9.0
1422	Crushed and broken limestone	63	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	8.5
144	Sand and gravel	75	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	6.5
1442	Construction sand and gravel	75	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	24	3	0.3	1.5	0.3	0.5	1.5	6.8	0.9	7.7	(NA)	0.3	5.3
144	Sand and gravel	6	1	0.1	0.7	0.1	0.2	0.7	0.5	(Z)	0.6	(NA)	(Z)	0.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Kansas:													
	Establishments.....number..	1,115	1,109	331	6	17	308	95	5	74	16	19	664	6
	Employees.....1,000..	10.6	10.6	4.8	(Z)	.1	4.7	1.2	.2	.9	.2	(D)	(D)	(Z)
	Value added in mining..mil.dol..	431.8	432.0	310.1	.4	.8	308.9	21.4	2.6	15.4	3.3	(D)	(D)	-.3
10	Metal mining:													
	Establishments.....number..	5	5	5	5	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
103	Lead and zinc ores:													
	Establishments.....number..	5	5	5	5	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	6	6	1	1	-	-	4	-	4	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	.2	-	.2	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	4.4	-	4.4	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	6	6	1	1	-	-	4	-	4	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	.2	-	.2	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	4.4	-	4.4	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	954	948	307	-	-	307	-	-	-	-	19	622	6
	Employees.....1,000..	9.1	9.1	(D)	-	-	(D)	-	-	-	-	(D)	4.1	(Z)
	Value added in mining..mil.dol..	407.6	407.8	(D)	-	-	(D)	-	-	-	-	(D)	55.4	-.3
131	Crude petroleum and natural gas:													
	Establishments.....number..	522	516	307	-	-	307	-	-	-	-	-	209	6
	Employees.....1,000..	5.3	5.3	(D)	-	-	(D)	-	-	-	-	-	(D)	(Z)
	Value added in mining..mil.dol..	319.2	319.5	(D)	-	-	(D)	-	-	-	-	-	(D)	-.3
132	Natural gas liquids:													
	Establishments.....number..	19	19	-	-	-	-	-	-	-	-	19	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	413	413	-	-	-	-	-	-	-	-	-	413	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	150	150	18	-	17	1	91	5	70	16	-	41	-
	Employees.....1,000..	(D)	(D)	(D)	-	.1	(D)	1.1	.2	.7	.2	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	.8	(D)	17.0	2.6	11.0	3.3	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	65	65	11	-	10	1	52	3	49	-	-	2	-
	Employees.....1,000..	.6	.6	(D)	-	(D)	(D)	.6	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	10.6	10.6	(D)	-	(D)	(D)	9.6	(D)	(D)	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	75	75	4	-	4	-	33	-	18	15	-	38	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.3	-	(D)	(D)	-	.1	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	4.8	-	(D)	(D)	-	1.0	-
145	Clay and related minerals:													
	Establishments.....number..	3	3	1	-	1	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Kansas--Continued													
	Nonmetallic minerals, except fuels--Con.													
147	Chemical and fertilizer minerals:													
	Establishments.....number..	4	4	-	-	-	-	3	2	-	1	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	(D)	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	(D)	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,115	1,809	Cost of supplies, total.....million dollars..	257.0	273.7
With 0 to 19 employees.....do....	968	1,639	Supplies used, minerals received for preparation, and purchased machinery.....do....	204.2	(NA)
With 20 to 99 employees.....do....	141	156	Cost of resales.....do....	.6	(NA)
With 100 or more employees.....do....	5	14	Purchased fuels consumed.....do....	9.8	(NA)
All employees (average for year).....1,000..	10.6	14.1	Electric energy:		
			Quantity purchased.....million kw.-hrs..	561.8	(NA)
Payroll (all employees), total for year.....million dollars..	65.2	72.5	Cost.....million dollars..	8.3	(NA)
			Generated less sold.....million kw.-hrs..	52.1	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	34.2	69.0
Average for the year.....1,000..	8.7	11.5	Value of shipments and receipts (including resales), total.....do....	636.2	615.1
March.....do....	8.5	(NA)	Value of resales.....do....	1.6	(NA)
May.....do....	8.8	(NA)			
August.....do....	8.7	(NA)	Value added in mining.....do....	431.8	433.4
November.....do....	8.6	(NA)			
Man-hours.....millions..	17.5	23.3	Capital expenditures (except land and mineral rights), total.....do....	52.6	92.0
Wages.....million dollars..	48.7	55.8	Mineral development and exploration.....do....	17.6	31.5
			New structures and additions.....do....	7.2	
Supplemental labor cost not included in payroll.....do..	6.0	(NA)	New machinery and equipment.....do....	18.7	60.5
			Used plant and equipment.....do....	9.0	
			Mineral development and exploration expenditures, total.....do....	34.0	(NA)
Legally required expenditures, including Social Security contributions.....do..	3.5	(NA)	Capitalized.....do....	17.6	31.5
Payments for voluntary programs.....do..	2.5	(NA)	Expensed.....do....	16.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Kansas, total	1,115	147	10.6	65.2	8.7	17.5	48.7	431.8	257.0	636.2	52.6	14.1	433.4
	COUNTIES [2]													
	Allen county	28	1	.1	.6	.1	.2	.5	2.3	1.4	2.6	1.1	.2	2.5
	Barber county, total	77	2	.2	1.4	.2	.4	1.1	6.5	2.5	7.9	1.0	.2	8.6
13	Oil and gas extraction	77	2	.2	1.4	.2	.4	1.1	6.5	2.5	7.9	1.0	(D)	(D)
138	Oil and gas field services	17	2	.1	.6	.1	.2	.5	.7	.4	1.1	.1	(D)	(D)
	Barton county, total	225	18	1.4	8.2	1.2	2.4	6.3	26.3	11.3	33.2	4.4	1.3	27.3
13	Oil and gas extraction	221	18	1.4	8.0	1.2	2.3	6.2	25.9	11.1	32.8	4.3	1.2	27.2
131	Crude petroleum and natural gas	125	7	.6	3.5	.4	.8	2.3	18.0	8.0	22.5	3.5	.7	21.7
138	Oil and gas field services	96	11	.8	4.5	.7	1.5	3.8	7.9	3.2	10.2	.8	.5	5.6
	Butler county, total	92	4	.5	3.0	.4	.8	2.2	11.8	3.6	13.8	1.5	.8	17.0
13	Oil and gas extraction	90	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	16.9
131	Crude petroleum and natural gas	63	2	.3	2.0	.2	.5	1.3	9.8	3.0	11.5	1.2	.5	14.2
138	Oil and gas field services	27	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.8
	Chautauqua county	26	1	.1	.5	.1	.2	.4	1.4	.4	1.6	.3	.2	3.0
	Cherokee county	9	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.3
	Cowley county, total	71	1	.2	1.2	.2	.3	.9	6.5	2.0	7.7	.8	.4	8.4
13	Oil and gas extraction	67	1	.2	1.1	.2	.3	.9	6.3	1.9	7.4	.8	.3	8.2
131	Crude petroleum and natural gas	51	-	.1	.7	.1	.2	.5	5.7	1.6	6.5	.7	.2	7.1
	Crawford county	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.9
	Ellis county, total	135	4	.4	2.7	.4	.7	2.1	20.7	8.1	26.0	2.8	.6	23.3
13	Oil and gas extraction	134	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	92	-	.2	1.1	.2	.3	.7	16.8	6.0	20.4	2.3	.3	18.8
138	Oil and gas field services	42	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ellsworth county, total	58	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	9.9
13	Oil and gas extraction	57	1	.1	.8	.1	.2	.6	21.3	45.5	65.3	1.4	(D)	(D)
	Finney county	45	1	.1	.8	.1	.2	.5	8.2	12.6	20.3	.4	.1	9.7
	Graham county, total	76	2	.2	1.2	.2	.4	.9	9.6	3.2	11.4	1.4	.2	11.9
13	Oil and gas extraction	76	2	.2	1.2	.2	.4	.9	9.6	3.2	11.4	1.4	(D)	(D)
131	Crude petroleum and natural gas	56	1	.1	.7	.1	.2	.5	9.0	2.7	10.4	1.3	.1	10.7
	Grant county, total	29	2	.1	.9	.1	.2	.8	27.0	30.6	55.9	1.6	.2	17.7
13	Oil and gas extraction	29	2	.1	.9	.1	.2	.8	27.0	30.6	55.9	1.6	.2	17.7
	Greenwood county, total	70	2	.3	1.4	.2	.4	1.1	4.1	1.8	5.0	.8	.4	7.7
13	Oil and gas extraction	70	2	.3	1.4	.2	.4	1.1	4.1	1.8	5.0	.8	.4	7.7
131	Crude petroleum and natural gas	45	1	.1	.8	.1	.2	.6	2.7	1.3	3.4	.7	.3	6.5
138	Oil and gas field services	25	1	.1	.6	.1	.2	.5	1.3	.5	1.7	.1	.1	1.3
	Hodgeman county, total	37	2	.1	.6	.1	.2	.4	4.2	1.6	5.3	.5	.1	7.0
13	Oil and gas extraction	37	2	.1	.6	.1	.2	.4	4.2	1.6	5.3	.5	.1	7.0
	Kingman county, total	75	1	.2	1.1	.1	.3	.8	18.4	13.3	28.2	3.5	.2	10.8
13	Oil and gas extraction	74	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Kansas--Continued													
	COUNTIES[2]--Continued													
	McPherson county, total.....	68	2	.2	1.2	.2	.3	.8	4.0	1.3	4.5	.8	.4	6.3
13	Oil and gas extraction.....	67	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	49	1	.1	.6	.1	.1	.3	3.1	.9	3.3	.7	.2	4.5
	Marion county.....	38	2	.1	.6	.1	.2	.5	2.1	1.6	3.4	.3	.2	4.4
	Neosho county.....	38	-	.1	.6	.1	.2	.5	1.1	.4	1.3	.2	.2	3.2
	Pratt county, total.....	62	2	.2	1.1	.1	.3	.8	4.3	2.1	5.4	1.0	.2	4.8
13	Oil and gas extraction.....	61	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Reno county, total.....	71	2	.2	1.4	.1	.3	.8	10.5	11.0	20.1	1.4	.2	4.3
13	Oil and gas extraction.....	63	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.5
	Rice county, total.....	115	2	.3	1.8	.2	.5	1.4	8.7	3.4	11.0	1.1	.5	13.7
13	Oil and gas extraction.....	112	2	.3	1.7	.2	.4	1.3	8.6	3.3	10.8	1.1	.4	13.5
131	Crude petroleum and natural gas.....	81	1	.2	1.1	.1	.3	.8	7.4	3.0	9.4	1.0	.3	11.9
138	Oil and gas field services...	31	1	.1	.6	.1	.2	.5	1.1	.4	1.4	.1	.2	1.6
	Rooks county, total.....	106	3	.4	2.2	.3	.6	1.5	10.0	3.6	12.2	1.4	.4	12.9
13	Oil and gas extraction.....	106	3	.4	2.2	.3	.6	1.5	10.0	3.6	12.2	1.4	.4	12.9
131	Crude petroleum and natural gas.....	72	2	.2	1.4	.2	.3	1.0	8.9	3.2	10.9	1.3	.2	11.4
138	Oil and gas field services...	34	1	.1	.7	.1	.2	.6	1.1	.4	1.3	.2	.2	1.6
	Rush county, total.....	31	1	.1	.9	.1	.2	.7	5.3	1.2	5.0	1.5	.1	1.9
13	Oil and gas extraction.....	31	1	.1	.9	.1	.2	.7	5.3	1.2	5.0	1.5	.1	1.9
131	Crude petroleum and natural gas.....	22	1	.1	.8	.1	.2	.6	5.1	1.1	4.7	1.5	(Z)	.9
	Russell county, total.....	133	4	.5	3.3	.4	.9	2.5	19.9	6.0	23.2	2.7	.8	21.5
13	Oil and gas extraction.....	133	4	.5	3.3	.4	.9	2.5	19.9	6.0	23.2	2.7	(D)	(D)
131	Crude petroleum and natural gas.....	87	3	.4	2.3	.3	.5	1.5	17.9	5.2	20.6	2.6	.4	18.0
138	Oil and gas field services...	46	1	.2	1.0	.2	.4	.9	2.0	.8	2.6	.1	(D)	(D)
	Sedgwick county, total.....	189	17	1.3	8.2	.8	1.5	4.1	15.3	9.9	22.9	2.3	1.0	17.5
13	Oil and gas extraction.....	178	17	1.3	7.9	.8	1.4	3.9	14.5	9.7	22.0	2.2	.9	16.7
131	Crude petroleum and natural gas.....	123	10	.9	5.6	.4	.8	2.1	9.3	3.3	10.8	1.8	.6	12.6
138	Oil and gas field services...	54	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Seward county, total.....	62	4	.3	2.5	.3	.5	1.8	9.9	20.5	29.3	1.1	.5	11.9
13	Oil and gas extraction.....	61	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	36	2	.2	1.5	.1	.2	.9	6.6	1.2	7.1	.8	.1	5.7
138	Oil and gas field services...	23	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Kansas--Continued													
	COUNTIES[2]--Continued													
	Stafford county, total.....	118	-	.2	.9	.1	.3	.7	8.1	3.0	10.0	1.1	.3	12.5
13	Oil and gas extraction.....	118	-	.2	.9	.1	.3	.7	8.1	3.0	10.0	1.1	(D)	(D)
	Sumner county, total.....	50	1	.1	.8	.1	.3	.7	5.2	1.6	6.5	.3	.2	5.8
13	Oil and gas extraction.....	49	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wyandotte county, total.....	6	2	.1	.7	.1	.2	.5	1.6	.5	2.0	.1	.2	2.0
14	Nonmetallic minerals, except fuels.....	6	2	.1	.7	.1	.2	.5	1.6	.5	2.0	.1	.2	2.0

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kansas, total	1,115	5	-	6	954	150
0 to 4 employees	620	2	-	1	545	72
5 to 9 employees	181	2	-	1	145	33
10 to 19 employees	167	1	-	1	139	26
20 to 49 employees	116	-	-	2	96	18
50 to 99 employees	25	-	-	1	23	1
100 to 249 employees	5	-	-	-	5	-
250 to 499 employees	1	-	-	-	1	-
Allen county, total	28	-	-	-	27	1
0 to 19 employees	27	-	-	-	27	-
20 to 99 employees	1	-	-	-	-	1
Anderson county, total	10	-	-	-	9	1
0 to 19 employees	10	-	-	-	9	1
Atchison county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Barber county, total	77	-	-	-	77	-
0 to 19 employees	75	-	-	-	75	-
20 to 99 employees	2	-	-	-	2	-
Barton county, total	225	-	-	-	221	4
0 to 19 employees	207	-	-	-	203	4
20 to 99 employees	17	-	-	-	17	-
100 to 249 employees	1	-	-	-	1	-
Bourbon county, total	6	-	-	1	3	2
0 to 19 employees	5	-	-	1	3	1
20 to 99 employees	1	-	-	-	-	1
Brown county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Butler county, total	92	-	-	-	90	2
0 to 19 employees	88	-	-	-	86	2
20 to 99 employees	3	-	-	-	3	-
100 to 249 employees	1	-	-	-	1	-
Chase county, total	10	-	-	-	8	2
0 to 19 employees	10	-	-	-	8	2
Chautauqua county, total	26	-	-	-	25	1
0 to 19 employees	25	-	-	-	24	1
20 to 99 employees	1	-	-	-	1	-
Cherokee county, total	9	5	-	1	-	3
0 to 19 employees	8	5	-	-	-	3
20 to 99 employees	1	-	-	1	-	-
Clark county, total	25	-	-	-	25	-
0 to 19 employees	25	-	-	-	25	-
Clay county, total	5	-	-	-	2	3
0 to 19 employees	5	-	-	-	2	3
Cloud county, total	4	-	-	-	2	2
0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	1	-	-	-	-	1
Coffey county, total	12	-	-	-	11	1
0 to 19 employees	12	-	-	-	11	1
Comanche county, total	21	-	-	-	21	-
0 to 19 employees	20	-	-	-	20	-
20 to 99 employees	1	-	-	-	1	-
Cowley county, total	71	-	-	-	67	4
0 to 19 employees	70	-	-	-	66	4
20 to 99 employees	1	-	-	-	1	-
Crawford county, total	7	-	-	4	2	1
0 to 19 employees	4	-	-	2	2	-
20 to 99 employees	3	-	-	2	-	1
Decatur county, total	23	-	-	-	23	-
0 to 19 employees	23	-	-	-	23	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kansas--Continued						
Dickinson county, total	18	-	-	-	7	11
0 to 19 employees	17	-	-	-	7	10
20 to 99 employees	1	-	-	-	-	1
Doniphan county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Douglas county, total	5	-	-	-	3	2
0 to 19 employees	5	-	-	-	3	2
Edwards county, total	35	-	-	-	35	-
0 to 19 employees	35	-	-	-	35	-
Elk county, total	14	-	-	-	12	2
0 to 19 employees	13	-	-	-	12	1
20 to 99 employees	1	-	-	-	-	1
Ellis county, total	135	-	-	-	134	1
0 to 19 employees	131	-	-	-	130	1
20 to 99 employees	4	-	-	-	4	-
Ellsworth county, total	58	-	-	-	57	1
0 to 19 employees	56	-	-	-	56	-
20 to 99 employees	2	-	-	-	1	1
Finney county, total	45	-	-	-	43	2
0 to 19 employees	44	-	-	-	43	1
20 to 99 employees	1	-	-	-	-	1
Ford county, total	10	-	-	-	8	2
0 to 19 employees	10	-	-	-	8	2
Franklin county, total	13	-	-	-	9	4
0 to 19 employees	13	-	-	-	9	4
Geary county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Gove county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Graham county, total	76	-	-	-	76	-
0 to 19 employees	74	-	-	-	74	-
20 to 99 employees	2	-	-	-	2	-
Grant county, total	29	-	-	-	29	-
0 to 19 employees	27	-	-	-	27	-
20 to 99 employees	2	-	-	-	2	-
Gray county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Greeley county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Greenwood county, total	70	-	-	-	70	-
0 to 19 employees	68	-	-	-	68	-
20 to 99 employees	2	-	-	-	2	-
Hamilton county, total	17	-	-	-	16	1
0 to 19 employees	17	-	-	-	16	1
Harper county, total	45	-	-	-	45	-
0 to 19 employees	44	-	-	-	44	-
20 to 99 employees	1	-	-	-	1	-
Harvey county, total	32	-	-	-	32	-
0 to 19 employees	32	-	-	-	32	-
Haskell county, total	26	-	-	-	25	1
0 to 19 employees	26	-	-	-	25	1
Hodgeman county, total	37	-	-	-	37	-
0 to 19 employees	35	-	-	-	35	-
20 to 99 employees	2	-	-	-	2	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kansas--Continued						
Jackson county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Jefferson county, total	4	-	-	-	2	2
0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	1	-	-	-	-	1
Jewell county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Johnson county, total	10	-	-	-	3	7
0 to 19 employees	8	-	-	-	3	5
20 to 99 employees	2	-	-	-	-	2
Kearny county, total	28	-	-	-	28	-
0 to 19 employees	28	-	-	-	28	-
Kingman county, total	75	-	-	-	74	1
0 to 19 employees	74	-	-	-	73	1
20 to 99 employees	1	-	-	-	1	-
Kiowa county, total	42	-	-	-	41	1
0 to 19 employees	42	-	-	-	41	1
Labette county, total	8	-	-	-	8	-
0 to 19 employees	8	-	-	-	8	-
Lane county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Leavenworth county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Lincoln county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Linn county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Logan county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Lyon county, total	7	-	-	-	4	3
0 to 19 employees	7	-	-	-	4	3
McPherson county, total	68	-	-	-	67	1
0 to 19 employees	66	-	-	-	65	1
20 to 99 employees	2	-	-	-	2	-
Marion county, total	38	-	-	-	34	4
0 to 19 employees	36	-	-	-	33	3
20 to 99 employees	2	-	-	-	1	1
Marshall county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Meade county, total	38	-	-	-	38	-
0 to 19 employees	38	-	-	-	38	-
Miami county, total	13	-	-	-	13	-
0 to 19 employees	13	-	-	-	13	-
Montgomery county, total	38	-	-	-	38	-
0 to 19 employees	37	-	-	-	37	-
20 to 99 employees	1	-	-	-	1	-
Morris county, total	15	-	-	-	11	4
0 to 19 employees	15	-	-	-	11	4
Morton county, total	41	-	-	-	41	-
0 to 19 employees	41	-	-	-	41	-
Nemaha county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Neosho county, total	38	-	-	-	36	2
0 to 19 employees	38	-	-	-	36	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kansas--Continued						
Ness county, total	54	-	-	-	53	1
0 to 19 employees	53	-	-	-	53	-
20 to 99 employees	1	-	-	-	-	1
Norton county, total	20	-	-	-	18	2
0 to 19 employees	20	-	-	-	18	2
Osborne county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Ottawa county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Pawnee county, total	50	-	-	-	49	1
0 to 19 employees	50	-	-	-	49	1
Phillips county, total	24	-	-	-	24	-
0 to 19 employees	24	-	-	-	24	-
Pottawatomie county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Pratt county, total	62	-	-	-	61	1
0 to 19 employees	60	-	-	-	59	1
20 to 99 employees	2	-	-	-	2	-
Rawlins county, total	9	-	-	-	8	1
0 to 19 employees	9	-	-	-	8	1
Reno county, total	71	-	-	-	63	8
0 to 19 employees	69	-	-	-	63	6
20 to 99 employees	2	-	-	-	-	2
Republic county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Rice county, total	115	-	-	-	112	3
0 to 19 employees	113	-	-	-	110	3
20 to 99 employees	2	-	-	-	2	-
Riley county, total	5	-	-	-	2	3
0 to 19 employees	5	-	-	-	2	3
Rooks county, total	106	-	-	-	106	-
0 to 19 employees	103	-	-	-	103	-
20 to 99 employees	3	-	-	-	3	-
Rush county, total	31	-	-	-	31	-
0 to 19 employees	30	-	-	-	30	-
100 to 249 employees	1	-	-	-	1	-
Russell county, total	133	-	-	-	133	-
0 to 19 employees	129	-	-	-	129	-
20 to 99 employees	4	-	-	-	4	-
Saline county, total	21	-	-	-	19	2
0 to 19 employees	21	-	-	-	19	2
Scott county, total	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-
Sedgwick county, total	189	-	-	-	178	11
0 to 19 employees	172	-	-	-	161	11
20 to 99 employees	16	-	-	-	16	-
100 to 249 employees	1	-	-	-	1	-
Seward county, total	62	-	-	-	61	1
0 to 19 employees	58	-	-	-	57	1
20 to 99 employees	4	-	-	-	4	-
Shawnee county, total	8	-	-	-	3	5
0 to 19 employees	8	-	-	-	3	5
Sheridan county, total	14	-	-	-	14	-
0 to 19 employees	14	-	-	-	14	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kansas--Continued						
Sherman county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Stafford county, total	118	-	-	-	118	-
0 to 19 employees	118	-	-	-	118	-
Stanton county, total	21	-	-	-	21	-
0 to 19 employees	21	-	-	-	21	-
Stevens county, total	27	-	-	-	27	-
0 to 19 employees	27	-	-	-	27	-
Sumner county, total	50	-	-	-	49	1
0 to 19 employees	49	-	-	-	48	1
20 to 99 employees	1	-	-	-	1	-
Trego county, total	48	-	-	-	48	-
0 to 19 employees	48	-	-	-	48	-
Wabaunsee county, total	8	-	-	-	8	-
0 to 19 employees	8	-	-	-	8	-
Washington county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Wichita county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Wilson county, total	12	-	-	-	10	2
0 to 19 employees	11	-	-	-	10	1
20 to 99 employees	1	-	-	-	-	1
Woodson county, total	20	-	-	-	20	-
0 to 19 employees	20	-	-	-	20	-
Wyandotte county, total	6	-	-	-	-	6
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	2	-	-	-	-	2

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

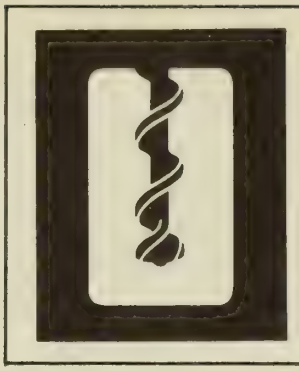
In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-889

1967 CENSUS OF Mineral Industries



MIC67(2)-16

AREA STATISTICS

KENTUCKY

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,267	259	24.6	157.1	22.0	42.1	132.6	403.0
1963	[1]2,066	319	27.8	131.6	24.9	45.4	115.1	337.4
1958	2,111	334	36.1	149.5	32.1	53.1	129.0	320.1
1954	1,816	337	38.9	139.3	35.8	59.7	124.1	272.1
Including operations in manufactures:								
1967	1,277	259	24.6	157.3	22.0	42.2	132.8	404.5
1963	2,091	320	27.9	132.0	25.0	45.6	115.6	339.7
1958	2,123	334	36.1	149.6	32.1	53.2	129.2	321.3
1954	1,828	337	38.9	139.4	35.8	59.7	124.2	272.2
1939[2]	[3]743	(NA)	53.8	57.0	51.5	73.9	52.3	77.2
1929								
1919[4]	949	(NA)	47.6	57.0	43.6	(NA)	49.6	76.9
1909[4]	464	(NA)	19.3	8.8	18.3	(NA)	7.8	10.4
1902[5]	[3]749	(NA)	11.6	5.9	10.7	(NA)	5.2	6.8
Excluding oil and gas extraction industries:								
1967	916	230	(D)	(D)	(D)	(D)	(D)	(D)
1963	1,402	282	23.9	115.1	21.6	39.1	101.7	262.3
1958	1,488	284	31.2	132.5	27.8	45.3	114.8	253.0
1954	1,325	285	34.5	126.3	31.8	52.5	112.5	212.5
1939[2]	[3]616	(NA)	52.0	55.2	49.8	71.5	50.9	68.3
1929[7]	554	(NA)	61.0	69.4	57.8	(NA)	62.8	87.7
1919[4]	745	(NA)	45.0	53.5	41.5	(NA)	47.0	58.1
1909[4]	377	(NA)	19.1	8.6	18.1	(NA)	7.7	9.8
1902[5]	[3]633	(NA)	11.3	5.7	[6]10.5	(NA)	5.1	7.0

Kind of operation and year	Selected expenses				Value of shipments and receipts[8]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[9]280.8	([9])	26.4	([9])	627.3	82.9	(NA)
1963	86.0	105.1	20.8	45.3	541.8	52.7	4.7
1958	88.6	75.9	24.6	28.1	492.5	45.0	4.1
1954	66.1	[10]24.8	14.9	18.8	365.9	30.7	3.5
Including operations in manufactures:							
1967	[11]307.4	([11])	([11])	([11])	629.0	(NA)	(NA)
1963	[12]86.5	105.1	[12]20.8	[13]45.3	544.7	[13]52.7	[13]4.7
1958	[12]88.7	75.9	[12]24.6	[13]28.1	493.6	[13]45.0	[13]4.1
1954	[12]66.2	[10]24.8	[12]14.9	[13]18.8	366.1	[13]30.7	[13]3.5
1939	13.6	(NA)	1.1	(NA)	91.8	(NA)	2.3
1929							
1919	18.3	[14](Z)	3.3	(NA)	98.5	(NA)	[15]5.9
1909	1.5	-	.2	(NA)	12.1	(NA)	(NA)
1902	1.3	(NA)	.4	(NA)	8.5	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1963	[12]72.5	61.4	[12]9.6	[13]39.0	408.6	[13]36.3	[13]3.0
1958	[12]74.0	63.3	[12]8.8	[13]22.2	398.0	[13]23.3	[13]2.0
1954	[12]55.1	23.3	[12]4.3	[13]12.2	293.6	[13]13.7	[13]1.5
1939[2]	12.7	(NA)	.2	(NA)	81.2	(NA)	2.0
1929[7]	16.1	(NA)	.1	3.0	103.9	(NA)	4.4
1919[4]	14.0	-	3.1	(NA)	75.2	(NA)	[13]5.5
1909[4]	1.4	-	.1	(NA)	11.2	(NA)	(NA)
1902[5]	.9	(NA)	(Z)	(NA)	8.0	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of this 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Kentucky--Continued

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand and 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 377 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for dimension stone dressing plants, if any, operated in conjunction with 3 dimension stone quarries. For "All operations," includes data for one or two oil and gas field hauling operations with receipts for services amounting to less than $45 thousand; such operations were not classified in the mineral industries for 1958 and 1954. For "Excluding oil and gas extractions operations," except for number of establishments, includes 3 nonproducing operations in the Crude Petroleum and Natural Gas Industry.

[3]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[4]Excludes data for sand, gravel, common clay, and shale operations; and limestone quarries operated as parts of lime plants. In 1939, the value of products of common clay and shale operations was $61 thousand.In 1929, the value of products of sand and gravel establishments was $1,348 thousand. For "Excluding oil and gas extractions operations" in 1909, except for number of establishments, includes data for 2 nonproducing operations in the Crude Petroleum and Natural Gas Industry.

[5]Excludes data for sand, gravel, common clay, and shale operations. Includes data for one cement plant and for lime plants producing lime valued at $16 thousand.

[6]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]Excludes data for common clay and shale operations. The value of products of such operations in 1939 was $61 thousand. For "Excluding oil and gas extraction industries," excludes nonproducing establishments.

[8]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magitude of this duplication is indicated by the figures for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958. excludes the value of residue gas from natural gas liquids plants.

[9]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for sand and gravel and clay mining operations in manufacturing establishments, and, for 1963, dimension stone in manufactures.

[14]Includes natural gas purchased for resale.

[15]Excludes purchased electric energy for "All operations." In 1939, the quantity of purchased electric energy amounted to 8 percent of the kw.-hrs. equivalent of energy used; and, for "Excluding oil and gas extraction industries" in 1929, to only 4 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,267	1,259	24.6	157.1	22.0	42.1	132.6	403.0	307.2	627.3	82.9	27.8	337.4
12	Bituminous coal and lignite mining	765	173	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	20.8	219.8
121	Bituminous coal and lignite mining	765	173	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	20.8	219.8
1211	Bituminous coal	761	173	18.8	125.1	17.1	32.1	107.7	291.8	199.8	428.9	62.8	20.7	219.3
13	Oil and gas extraction	361	29	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.0	77.4
131	Crude petroleum and natural gas	189	16	1.9	10.6	1.6	3.1	8.0	51.5	(D)	54.4	(D)	2.6	58.8
1312	Crude petroleum	157	12	1.1	5.7	.9	1.9	4.5	32.7	8.1	36.6	4.3	1.8	45.8
1313	Natural gas	32	4	.9	4.9	.7	1.2	3.5	18.8	5.3	17.8	6.4	.8	13.0
1321	Natural gas liquids	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	9.7
138	Oil and gas field services	167	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	9.0
1381	Drilling oil and gas wells	122	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	5.6
1389	Oil and gas field services, n.e.c.	39	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	139	57	2.9	16.0	2.4	5.2	12.3	41.4	21.5	54.8	8.1	3.0	40.1
142	Crushed and broken stone	101	44	2.1	11.3	1.7	3.9	8.7	30.0	15.0	39.2	5.8	2.2	30.1
1422	Crushed and broken limestone	97	43	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.2	30.1
1429	Crushed and broken stone, nec	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	21	6	.4	2.4	.3	.7	1.8	7.4	3.1	9.1	1.4	.4	5.4
1442	Construction sand and gravel	20	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	6	3	.1	1.0	.1	.3	.7	3.1	1.2	4.0	.3	.2	2.6
1455	Kaolin and ball clay	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	7	3	.1	.8	.1	.2	.7	-.1	1.7	1.2	.4	(D)	(D)
1473	Fluorspar	7	3	.1	.8	.1	.2	.7	-.1	1.7	1.2	.4	(D)	(D)
1481	Nonmetallic minerals services	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	10	-	(Z)	0.2	(Z)	0.1	0.2	1.5	0.2	1.7	(NA)	0.1	2.3

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Kentucky:													
	Establishments.....number..	1,267	1,256	702	585	14	103	233	88	113	32	34	287	11
	Employees.....1,000..	24.6	24.6	8.7	6.4	.3	2.0	13.8	9.1	3.3	1.3	.6	1.5	.1
	Value added in mining..mil.dol..	403.0	403.2	135.0	62.9	17.4	54.7	238.2	118.9	82.7	36.6	15.5	14.4	-.2
10	Metal mining:													
	Establishments.....number..	2	2	1	1	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	(D)	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	765	763	606	581	9	16	121	73	23	25	27	9	2
	Employees.....1,000..	(D)	(D)	6.8	6.3	.3	.2	11.3	(D)	(D)	(D)	.4	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	84.3	62.9	16.4	5.1	200.4	(D)	(D)	(D)	7.3	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	765	763	606	581	9	16	121	73	23	25	27	9	2
	Employees.....1.000..	(D)	(D)	6.8	6.3	.3	.2	11.3	(D)	(D)	(D)	.4	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	84.3	62.9	16.4	5.1	200.4	(D)	(D)	(D)	7.3	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	361	352	85	-	-	85	-	-	-	-	5	262	9
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	189	180	85	-	-	85	-	-	-	-	-	95	9
	Employees.....1,000..	1.9	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	51.5	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	5	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	167	167	-	-	-	-	-	-	-	-	-	167	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	139	139	10	3	5	2	112	15	90	7	2	15	-
	Employees.....1,000..	2.9	2.9	(D)	(D)	.1	(D)	2.5	(D)	(D)	(D)	(D)	.2	-
	Value added in mining..mil.dol..	41.4	41.4	(D)	(D)	1.0	(D)	37.8	(D)	(D)	(D)	(D)	2.4	-
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	101	101	2	1	1	-	95	14	78	3	-	4	-
	Employees.....1.000..	2.1	2.1	(D)	(D)	(D)	-	2.0	(D)	1.6	(D)	-	(D)	-
	Value added in mining..mil.dol..	30.0	30.0	(D)	(D)	(D)	-	29.7	(D)	24.2	(D)	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	21	21	2	-	-	2	10	-	6	4	-	9	-
	Employees.....1,000..	.4	.4	(D)	-	-	(D)	.3	-	.1	.2	-	(D)	-
	Value added in mining..mil.dol..	7.4	7.4	(D)	-	-	(D)	5.6	-	2.6	2.9	-	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Kentucky--Continued													
145	Clay and related minerals:													
	Establishments.....number..	6	6	3	-	3	-	3	-	3	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	3.1	3.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	7	7	2	2	-	-	2	1	1	-	2	1	-
	Employees.....1,000..	.1	.1	(D)	(D)	-	-	(D)	(D)	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	-.1	-.1	(D)	(D)	-	-	(D)	(D)	(D)	-	(D)	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,267	2,066	Cost of supplies, total.....million dollars..	3,072	257.1
With 0 to 19 employees.....do....	1,008	1,747	Supplies used, minerals received for preparation, and purchased machinery.....do....	261.3	(NA)
With 20 to 99 employees.....do....	211	274	Cost of resales.....do....	2.0	(NA)
With 100 or more employees.....do....	48	45	Purchased fuels consumed.....do....	7.0	(NA)
All employees (average for year).....1,000..	24.6	27.8	Electric energy:		
Payroll (all employees), total for year.....million dollars..	157.1	131.6	Quantity purchased.....million kw.-hrs..	823.5	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	11.1	(NA)
Average for the year.....1,000..	22.0	24.9	Generated less sold.....million kw.-hrs..	10.8	(NA)
March.....do....	21.5	(NA)	Contract work.....million dollars..	25.8	20.8
May.....do....	22.3	(NA)	Value of shipments and receipts (including resales), total.....do....	627.3	541.8
August.....do....	22.4	(NA)	Value of resales.....do....	3.1	(NA)
November.....do....	21.9	(NA)	Value added in mining.....do....	403.0	337.4
Man-hours.....millions..	42.1	45.4	Capital expenditures (except land and mineral rights), total.....do....	82.9	52.7
Wages.....million dollars..	132.6	115.1	Mineral development and exploration.....do....	9.3	7.8
Supplemental labor cost not included in payroll.....do..	24.3	(NA)	New structures and additions.....do....	17.5	44.9
			New machinery and equipment.....do....	52.2	
			Used plant and equipment.....do....	3.9	
Legally required expenditures, including Social Security contributions.....do..	9.4	(NA)	Mineral development and exploration expenditures, total.....do....	13.1	(NA)
Payments for voluntary programs.....do..	14.9	(NA)	Capitalized.....do....	9.3	7.8
			Expensed.....do....	3.8	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Kentucky, total	1,267	259	24.6	157.1	22.0	42.1	132.6	403.0	307.2	627.3	82.9	27.8	337.4
	COUNTIES[2]													
	Bell county, total	35	10	.5	2.7	.5	.9	2.5	8.4	5.0	12.1	1.3	.5	4.8
12	Bituminous coal and lignite mining	32	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	32	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Breathitt county	10	2	.1	.5	.1	.2	.5	1.6	1.2	2.3	.6	.1	1.2
	Clay county, total	32	9	.6	2.3	.5	.9	2.1	6.3	5.3	11.0	.6	1.2	5.7
12	Bituminous coal and lignite mining	28	9	.5	2.2	.5	.9	2.0	5.7	5.2	10.3	.5	(D)	(D)
121	Bituminous coal and lignite mining	28	9	.5	2.2	.5	.9	2.0	5.7	5.2	10.3	.5	(D)	(D)
	Daviess county, total	86	4	.4	2.7	.4	.7	2.1	6.2	3.2	7.8	1.6	.5	9.1
12	Bituminous coal and lignite mining	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	79	2	.3	1.4	.2	.4	1.0	2.7	1.2	3.1	.7	.3	6.3
131	Crude petroleum and natural gas	48	2	.2	.9	.1	.2	.6	2.0	.9	2.3	.6	.2	5.3
	Fayette county	14	2	.1	.8	.1	.3	.5	1.2	.7	1.5	.4	.1	1.4
	Floyd county, total	124	19	2.5	17.3	2.2	4.1	14.2	34.0	26.6	54.5	6.1	2.6	29.9
12	Bituminous coal and lignite mining	91	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.4	23.5
121	Bituminous coal and lignite mining	91	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.4	23.5
13	Oil and gas extraction	32	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	21	2	.2	1.0	.1	.2	.8	3.3	.8	3.8	.3	(D)	(D)
	Harlan county, total	64	20	2.2	14.3	1.9	3.6	11.4	24.3	11.0	33.0	2.3	2.6	20.2
12	Bituminous coal and lignite mining	62	19	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	62	19	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Henderson county, total	64	8	.5	2.9	.5	1.0	2.5	11.2	3.5	13.5	1.2	.5	13.2
13	Oil and gas extraction	58	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	12.5
131	Crude petroleum and natural gas	38	4	.2	1.0	.2	.3	.8	7.5	1.9	8.6	.9	.2	9.9
138	Oil and gas field services	20	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.6
	Hopkins county, total	66	17	2.2	16.8	1.9	4.0	13.8	44.6	31.6	56.4	19.8	2.8	33.8
12	Bituminous coal and lignite mining	36	16	2.1	16.0	1.8	3.8	13.2	41.3	30.0	52.8	18.5	(D)	(D)
121	Bituminous coal and lignite mining	36	16	2.1	16.0	1.8	3.8	13.2	41.3	30.0	52.8	18.5	(D)	(D)
13	Oil and gas extraction	30	1	.1	.8	.1	.2	.6	3.3	1.6	3.6	1.3	.2	2.3
	Jefferson county, total	19	6	.4	2.4	.3	.6	1.4	5.1	2.9	6.7	1.2	.3	3.9
14	Nonmetallic minerals, except fuels	13	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.7
142	Crushed and broken stone	9	3	.2	1.3	.1	.2	.7	2.5	2.0	3.5	1.0	.1	1.7
144	Sand and gravel	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.0

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Kentucky--Continued													
	COUNTIES[2]--Continued													
	Johnson county, total	41	5	.2	1.1	.2	.4	.9	2.5	.7	2.9	.4	.3	2.6
13	Oil and gas extraction	21	4	.1	.7	.1	.2	.6	1.9	.4	2.0	.3	.1	1.6
	Knott county, total	33	2	.3	1.4	.3	.5	1.2	3.9	1.9	5.4	.4	.5	4.8
12	Bituminous coal and lignite mining	23	1	.2	.9	.2	.3	.9	1.8	1.2	2.8	.1	.4	2.6
121	Bituminous coal and lignite mining	23	1	.2	.9	.2	.3	.9	1.8	1.2	2.8	.1	.4	2.6
	Lee county, total	20	5	.2	.8	.1	.3	.7	4.1	.7	4.5	.3	.2	5.0
13	Oil and gas extraction	18	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.2
131	Crude petroleum and natural gas	14	3	.1	.6	.1	.2	.5	3.4	.6	3.7	.2	.1	4.1
	Leslie county, total	9	4	.5	1.5	.5	.8	1.5	4.2	1.3	5.1	.4	.8	4.7
12	Bituminous coal and lignite mining	6	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	6	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Letcher county, total	92	17	1.9	12.4	1.8	3.2	10.6	20.9	14.7	32.9	2.7	2.0	14.4
12	Bituminous coal and lignite mining	85	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	13.2
121	Bituminous coal and lignite mining	85	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	13.2
	Livingston county, total	9	5	.3	1.7	.2	.5	1.4	3.8	2.6	5.3	1.0	(D)	(D)
14	Nonmetallic minerals, except fuels	6	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	McCreary county, total	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.6
12	Bituminous coal and lignite mining	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Martin county	10	1	.1	.5	.1	.2	.4	2.7	.6	3.0	.3	.2	1.3
	Morgan county	4	2	.1	.4	.1	.2	.4	1.1	.4	1.4	.2	.1	1.1
	Muhlenberg county, total	37	10	1.2	12.2	1.1	2.6	11.0	53.8	23.7	68.5	9.0	1.7	45.2
12	Bituminous coal and lignite mining	13	8	1.1	11.4	1.0	2.3	10.3	49.3	22.5	63.2	8.7	1.5	42.1
121	Bituminous coal and lignite mining	13	8	1.1	11.4	1.0	2.3	10.3	49.3	22.5	63.2	8.7	(D)	(D)
14	Nonmetallic minerals, except fuels	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ohio county, total	28	6	.6	5.5	.6	1.2	4.8	19.3	8.5	25.1	2.7	.5	10.4
12	Bituminous coal and lignite mining	9	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	9	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Kentucky--Continued													
	COUNTIES[2]--Continued													
	Perry county, total	62	17	1.5	8.0	1.5	2.4	7.5	16.2	9.8	23.3	2.7	1.5	12.7
12	Bituminous coal and lignite mining	59	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	11.6
121	Bituminous coal and lignite mining	59	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Pike county, total	232	36	3.9	23.3	3.5	5.9	19.8	57.1	37.9	82.1	12.9	3.3	35.9
12	Bituminous coal and lignite mining	213	33	3.6	21.7	3.3	5.5	18.6	48.5	36.2	74.1	10.7	(D)	(D)
121	Bituminous coal and lignite mining	213	33	3.6	21.7	3.3	5.5	18.6	48.5	36.2	74.1	10.7	(D)	(D)
13	Oil and gas extraction	16	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.0
131	Crude petroleum and natural gas	10	2	.2	1.2	.2	.3	.9	8.1	1.6	7.5	2.2	.2	6.4
	Pulaski county, total	6	3	.1	.7	.1	.3	.6	2.0	1.1	2.7	.4	.1	.2
12	Bituminous coal and lignite mining	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Union county, total	26	3	1.0	7.9	.9	1.9	7.0	18.3	12.8	23.7	7.4	.9	13.4
12	Bituminous coal and lignite mining	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	22	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.9
	Webster county, total	29	2	.3	2.2	.2	.5	1.9	5.5	1.5	6.2	.9	.1	3.5
12	Bituminous coal and lignite mining	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kentucky, total	1,267	2	-	765	361	139
0 to 4 employees	605	2	-	328	259	16
5 to 9 empolyees	172	-	-	119	37	16
10 to 19 employees	231	-	-	145	36	50
20 to 49 employees	168	-	-	103	19	46
50 to 99 employees	43	-	-	25	7	11
100 to 249 employees	34	-	-	32	2	-
250 to 499 employees	10	-	-	10	-	-
500 to 999 employees	4	-	-	3	1	-
Adair county, total	3	-	-	-	2	1
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	-	1
Allen county, total	10	-	-	-	9	1
0 to 19 employees	10	-	-	-	9	1
Anderson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Barren county, total	14	-	-	-	13	1
0 to 19 employees	13	-	-	-	13	-
20 to 99 employees	1	-	-	-	-	1
Bath county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Bell county, total	35	-	-	32	2	1
0 to 19 employees	25	-	-	22	2	1
20 to 99 employees	10	-	-	10	-	-
Boone county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Bourbon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Boyd county, total	10	-	-	2	8	-
0 to 19 employees	10	-	-	2	8	-
Boyle county, total	2	-	-	1	-	1
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	-	-	1
Breathitt county, total	10	-	-	3	7	-
0 to 19 employees	8	-	-	1	7	-
20 to 99 employees	2	-	-	2	-	-
Breckinridge county, total	5	-	-	-	2	3
0 to 19 employees	5	-	-	-	2	3
Bullitt county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Butler county, total	9	-	-	4	5	-
0 to 19 employees	9	-	-	4	5	-
Caldwell county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Calloway county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Campbell county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Carroll county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Carter county, total	7	-	-	1	-	6
0 to 19 employees	6	-	-	1	-	5
20 to 99 employees	1	-	-	-	-	1
Casey county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967–Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kentucky--Continued						
Kentucky-Continued						
Christian county, total	7	-	-	-	4	3
0 to 19 employees	5	-	-	-	4	1
20 to 99 employees	2	-	-	-	-	2
Clark county, total	9	-	-	-	8	1
0 to 19 employees	9	-	-	-	8	1
Clay county, total	32	-	-	28	4	-
0 to 19 employees	23	-	-	19	4	-
20 to 99 employees	7	-	-	7	-	-
100 to 249 employees	2	-	-	2	-	-
Clinton county, total	6	-	-	3	3	-
0 to 19 employees	6	-	-	3	3	-
Crittenden county, total	4	1	-	-	-	3
0 to 19 employees	2	1	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Cumberland county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Daviess county, total	86	-	-	5	79	2
0 to 19 employees	82	-	-	4	77	1
20 to 99 employees	3	-	-	-	2	1
100 to 249 employees	1	-	-	1	-	-
Edmonson county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Elliott county, total	8	-	-	-	7	1
0 to 19 employees	8	-	-	-	7	1
Estill county, total	11	-	-	1	9	1
0 to 19 employees	8	-	-	-	8	-
20 to 99 employees	3	-	-	1	1	1
Fayette county, total	14	-	-	3	8	3
0 to 19 employees	12	-	-	3	8	1
20 to 99 employees	2	-	-	-	-	2
Fleming county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Floyd county, total	124	-	-	91	32	1
0 to 19 employees	105	-	-	75	29	1
20 to 99 employees	14	-	-	12	2	-
100 to 249 employees	2	-	-	1	1	-
250 employees and over	3	-	-	3	-	-
Gallatin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Garrard county, total	3	-	-	1	1	1
0 to 19 employees	2	-	-	1	1	-
20 to 99 employees	1	-	-	-	-	1
Grant county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Graves county, total	3	-	-	-	1	2
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	2	-	-	-	-	2
Grayson county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Green county, total	11	-	-	1	10	-
0 to 19 employees	10	-	-	1	9	-
20 to 99 employees	1	-	-	-	1	-
Greenup county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation to Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kentucky-Continued						
Hancock county, total	6	-	-	-	5	1
0 to 19 employees	5	-	-	-	5	-
20 to 99 employees	1	-	-	-	-	1
Hardin county,total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
Harlan county, total	64	-	-	62	-	2
0 to 19 employees	44	-	-	43	-	1
20 to 99 employees	15	-	-	14	-	1
100 to 249 employees	4	-	-	4	-	-
250 employees and over	1	-	-	1	-	-
Harrison county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hart county, total	6	-	-	-	5	1
0 to 19 employees	5	-	-	-	5	-
20 to 99 employees	1	-	-	-	-	1
Henderson county, total	64	-	-	5	58	1
0 to 19 employees	56	-	-	4	51	1
20 to 99 employees	8	-	-	1	7	-
Henry county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Hopkins county, total	66	-	-	36	30	-
0 to 19 employees	49	-	-	20	29	-
20 to 99 employees	9	-	-	8	1	-
100 to 249 employees	6	-	-	6	-	-
250 employees and over	2	-	-	2	-	-
Jackson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Jefferson county, total	19	-	-	1	5	13
0 to 19 employees	13	-	-	1	5	7
20 to 99 employees	6	-	-	-	-	6
Jessamine county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Johnson county, total	41	-	-	20	21	-
0 to 19 employees	36	-	-	19	17	-
20 to 99 employees	5	-	-	1	4	-
Kenton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Knott county, total	33	-	-	23	10	-
0 to 19 employees	31	-	-	22	9	-
20 to 99 employees	2	-	-	1	1	-
Knox county, total	9	-	-	7	2	-
0 to 19 employees	9	-	-	7	2	-
Laurel county, total	6	-	-	3	2	1
0 to 19 employees	5	-	-	3	1	1
20 to 99 employees	1	-	-	-	1	-
Lawrence county, total	9	-	-	1	8	-
0 to 19 employees	8	-	-	1	7	-
20 to 99 employees	1	-	-	-	1	-
Lee county, total	20	-	-	1	18	1
0 to 19 employees	15	-	-	-	15	-
20 to 99 employees	5	-	-	1	3	1
Leslie county, total	9	-	-	6	3	-
0 to 19 employees	5	-	-	2	3	-
20 to 99 employees	2	-	-	2	-	-
100 to 249 employees	2	-	-	2	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kentucky--Continued						
Letcher county, total	92	-	1	85	5	2
0 to 19 employees	75	-	1	70	4	1
20 to 99 employees	11	-	-	9	1	1
100 to 249 employees	5	-	-	5	-	-
250 employees and over	1	-	-	1	-	-
Lewis county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lincoln county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Livingston county, total	9	1	1	2	-	6
0 to 19 employees	4	1	1	2	-	1
20 to 99 employees	5	-	-	-	-	5
Logan county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
McCreary county, total	8	-	-	8	-	-
0 to 19 employees	4	-	-	4	-	-
20 to 99 employees	4	-	-	4	-	-
McLean county, total	24	-	-	1	23	-
0 to 19 employees	23	-	-	1	22	-
20 to 99 employees	1	-	-	-	1	-
Madison county, total	3	-	-	1	1	1
0 to 19 employees	2	-	-	1	1	-
20 to 99 employees	1	-	-	-	-	1
Magoffin county, total	8	-	-	2	6	-
0 to 19 employees	7	-	-	1	6	-
20 to 99 employees	1	-	-	1	-	-
Marion county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Marshall county, total	1	-	-	-	-	1
o to 19 employees	1	-	-	-	-	1
Martin county, total	10	-	-	2	7	1
0 to 19 employees	9	-	-	1	7	1
20 to 99 employees	1	-	-	1	-	-
Mason county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Meade county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Menifee county, total	5	-	-	1	3	1
0 to 19 employees	4	-	-	1	2	1
20 to 99 employees	1	-	-	-	1	-
Mercer county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Metcalfe county, total	6	-	-	-	5	1
0 to 19 employees	6	-	-	-	5	1
Monroe county, total	4	-	-	-	3	1
0 to 19 employees	3	-	-	-	3	-
20 99 employees	1	-	-	-	-	1
Montgomery county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Morgan county, total	4	-	-	1	-	3
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	2	-	-	-	-	2
Muhlenberg county, total	37	-	-	13	21	3
0 to 19 employees	27	-	-	5	21	1
20 to 99 employees	5	-	-	3	-	2
100 to 249 employees	4	-	-	4	-	-
250 employees and over	1	-	-	1	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kentucky--Continued						
Nelson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Ohio county, total	28	-	-	9	18	1
0 to 19 employees	22	-	-	4	18	-
20 to 99 employees	5	-	-	4	-	1
100 to 249 employees	1	-	-	1	-	-
Oldham county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Pendleton county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Perry county, total	62	-	-	59	3	-
0 to 19 employees	45	-	-	43	2	-
20 to 99 employees	14	-	-	14	-	-
100 to 249 employees	2	-	-	1	1	-
250 employees and over	1	-	-	1	-	-
Pike county, total	231	-	-	214	16	1
0 to 19 employees	195	-	-	180	14	1
20 to 99 employees	29	-	-	28	1	-
100 to 249 employees	5	-	-	4	1	-
250 employees and over	2	-	-	2	-	-
Powell county, total	10	-	-	-	7	3
0 to 19 employees	9	-	-	-	6	3
20 to 99 employees	1	-	-	-	1	-
Pulaski county, toatl	6	-	-	2	2	2
0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	3	-	-	2	-	1
Rockcastle county, total	4	-	-	-	1	3
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	3	-	-	-	-	3
Rowan county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Russell county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Scott county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Shelby county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Simpson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Taylor county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Todd county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Trigg county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Trimble county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Union county, total	26	-	-	4	22	-
0 to 19 employees	23	-	-	2	21	-
20 to 99 employees	1	-	-	-	1	-
250 employees and over	2	-	-	2	-	-
Warren county, total	14	-	-	3	7	4
0 to 19 employees	14	-	-	3	7	4
Washington county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Kentucky--Continued						
Wayne county,total	4	-	-	-	3	1
0 to 19 employees	3	-	-	-	3	-
20 to 99 employees	1	-	-	-	-	1
Webster county, total	29	-	-	4	25	-
0 to 19 employees	27	-	-	2	25	-
20 to 99 employees	1	-	-	1	-	-
100 to 249 employees	1	-	-	1	-	-
Whitley county, total	15	-	-	12	3	-
0 to 19 employees	14	-	-	11	3	-
20 to 99 employees	1	-	-	1	-	-
Wolfe county, total	2	-	-	1	1	-
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

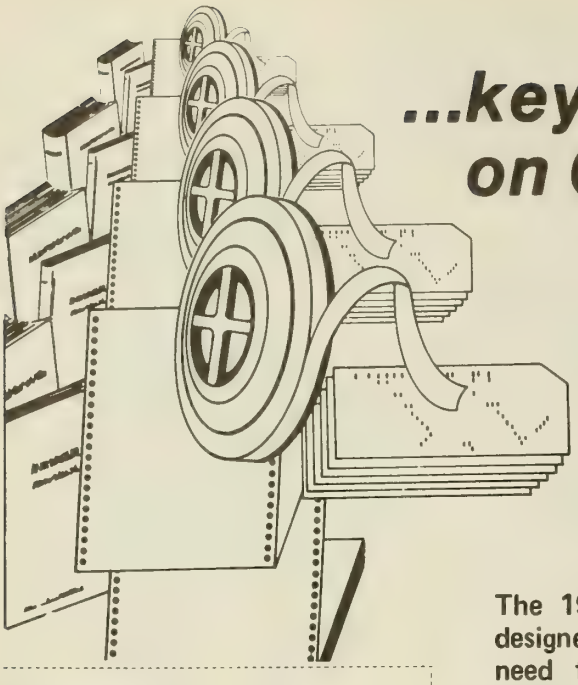
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-851

1967 CENSUS OF Mineral Industries



MIC67(2)-17

AREA STATISTICS

LOUISIANA

Issued March 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by Parish and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and Parish: 1967	11
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

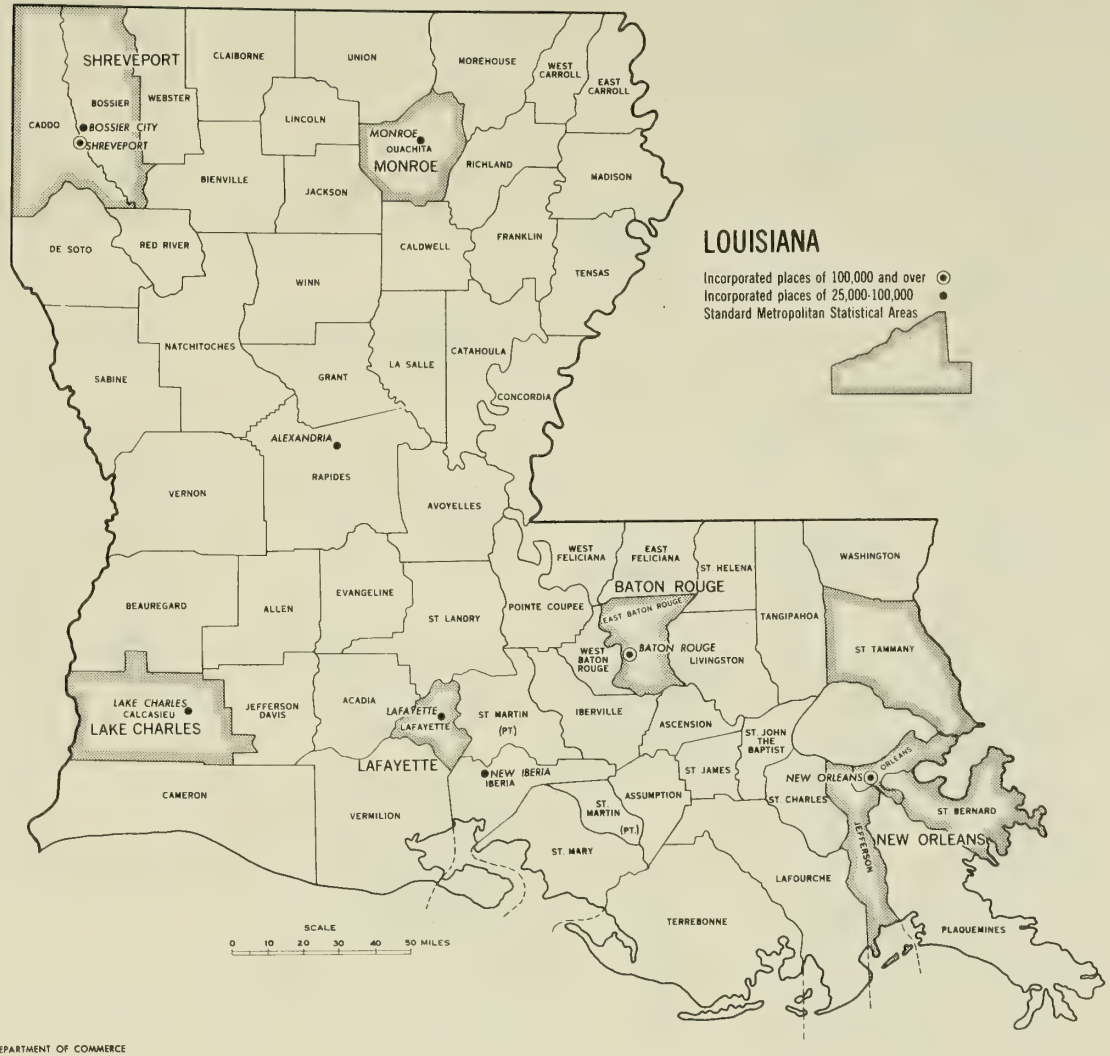
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U. S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,382	427	46.5	371.5	34.2	75.8	245.3	3,983.3
1963	[1] [2]1,454	[2]353	45.7	313.1	34.9	76.7	215.4	2,640.0
1958	1,121	344	46.1	264.9	33.3	75.4	174.6	1,527.7
1954	895	284	37.1	179.3	29.5	65.8	132.6	984.5
Including operations in manufactures:								
1967	1,394	430	47.0	374.5	34.8	77.1	249.5	3,993.2
1963	[2]1,473	[2]353	45.8	313.3	34.9	76.8	215.6	2,640.5
1958	1,132	344	46.2	265.0	33.3	75.5	174.7	1,528.1
1954[3]	911	286	37.2	179.5	29.6	66.0	132.9	985.0
1939	[4]573	(NA)	14.5	24.4	12.2	22.5	18.4	92.9
1919[5]	139	(NA)	5.7	8.5	4.9	(NA)	7.1	20.0
1909[6]	33	(NA)	1.1	1.2	1.0	(NA)	.9	4.9
1902	[4]3	(NA)	.1	.1	[7].1	(NA)	(Z)	.1
Excluding oil and gas extraction industries:								
1967	116	51	4.4	30.3	3.3	7.2	20.7	204.1
1963	121	35	3.3	18.5	2.6	5.6	13.0	83.4
1958	106	38	3.8	18.5	2.8	6.2	12.0	69.9
1954[3]	88	36	3.8	14.8	3.0	6.8	11.0	62.2
1939	[4]40	(NA)	1.7	2.1	1.4	2.8	1.3	9.6
1929[8]	17	(NA)	.5	.7	.4	(NA)	.4	1.4

Kind of operation and year	Selected expenses				Value of shipments and receipts [12] (million dollars)	Capital expenditures [11] (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy[9] (million dollars)	Minerals received for preparation[10] (million dollars)	Contract work [9] (million dollars)	Purchased machinery installed [11] (million dollars)			
Mineral industries only:							
1967	[13]1,627.0	([13])	560.3	([13])	5,146.6	1,025.1	(NA)
1963	[14]465.5	[14]456.0	418.5	173.4	3,416.8	736.7	61.8
1958	338.7	112.6	349.2	144.9	1,903.0	570.1	47.9
1954	[14]230.9	([14])	260.6	150.2	1,194.9	431.2	43.4
Including operations in manufactures:							
1967	[15]2,212.7	([15])	([15])	([15])	5,162.1	(NA)	(NA)
1963	[14]465.8	[14]456.0	418.5	173.4	3,417.6	736.7	61.8
1958	338.9	112.6	349.2	144.9	1,903.5	570.1	47.9
1954[3]	[14]231.0	([14])	260.6	150.2	1,195.6	431.2	43.4
1939	14.3	(NA)	26.7	(NA)	133.8	(NA)	16.4
1919[5]	9.2	[16].7	2.1	(NA)	32.0	(NA)	[17]5.3
1909[6]	1.6	[16](Z)	.1	(NA)	6.5	(NA)	(NA)
1902	(Z)	(NA)	.2	(NA)	.3	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[15]55.7	([15])	([15])	([15])	229.0	(NA)	(NA)
1963	[14]20.2	([14])	.8	4.5	102.5	6.4	5.1
1958	15.8	(Z)	6.5	9.3	82.8	18.8	5.3
1954[3]	15.3	-	1.0	2.1	75.8	4.8	3.9
1939	1.5	(NA)	(Z)	(NA)	11.1	(NA)	1.0
1929[8]	.7	(NA)	(Z)	.1	2.0	(NA)	.1

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Louisiana--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 169 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Figures for number of establishments in 1963 are not entirely comparable with those for earlier years. For 1963, operators of oil and gas field properties were asked to make separate reports by districts for North and South Louisiana, whereas only one report was required for the State in previous years.

[3]Excludes data for any sand and gravel mining operations in manufacturing establishments and, except for number of establishments, excludes data for 2 crushed and broken stone quarries in manufacturing establishments.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for 1 limestone establishment and 1 sulfur establishment.

[6]Excludes data for 2 nonproducing establishments.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes data for 1 limestone establishment.

[9]For sand and gravel and clay mining operations in manufacturing establishments, in 1958 and 1954 the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electricity.

[10]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants, but for 1954 includes the estimated value prior to processing of natural gas liquids contained in such gas.

[11]For 1963, 1958, and 1954, excludes data for sand and gravel and clay mining operations in manufacturing establishments.

[12]For sand and gravel and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[13]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]Cost of minerals received for preparation in the Nonmetallic Minerals Mining Industries for 1963, and for all industries for 1954, are included with cost of supplies, etc.

[15]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[16]Includes data for gas purchased for resale.

[17]Excludes purchased electric energy. For 1939, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,382	427	46.5	371.5	34.2	75.8	245.3	3,983.3	2,188.6	5,146.6	1,025.1	45.7	2,640.0
13	Oil and gas extraction	1,276	378	42.1	340.3	31.0	68.8	225.0	3,773.7	2,133.1	4,912.7	994.0	42.4	2,557.2
1311	Crude petroleum and natural gas	522	116	18.4	166.3	10.3	21.4	80.5	3,223.3	976.9	3,349.4	850.4	17.1	2,107.2
	Crude petroleum	366	72	14.3	132.1	7.8	16.1	60.9	2,435.8	741.7	2,503.1	674.3	14.3	1,719.3
	Natural gas	156	44	4.1	34.2	2.5	5.3	19.6	787.2	235.2	846.3	176.0	2.8	387.9
1321	Natural gas liquids	98	25	1.4	11.6	1.2	2.5	9.6	152.4	950.9	1,040.7	62.6	1.5	154.9
138	Oil and gas field services	656	237	22.3	162.5	19.5	44.9	134.9	398.3	205.3	522.6	81.0	23.9	295.2
1381	Drilling oil and gas wells	209	102	10.2	74.9	9.2	20.5	66.1	184.3	115.9	247.9	52.4	11.8	173.5
1382	Oil and gas exploration services	65	18	1.9	10.9	1.6	4.3	8.1	30.5	11.5	38.2	3.8	1.6	17.1
1389	Oil and gas field services, n.e.c.	382	117	10.4	76.6	8.7	20.1	60.6	183.5	77.9	236.6	24.9	10.5	104.6
14	Nonmetallic minerals, except fuels	104	48	4.2	29.5	3.2	6.9	19.9	203.2	54.2	226.6	30.8	3.3	82.8
144	Sand and gravel	76	28	1.3	6.5	1.2	2.5	5.6	18.0	7.7	23.1	2.7	1.2	12.2
1442	Construction sand and gravel	73	25	1.2	5.9	1.1	2.3	5.1	16.5	7.0	21.1	2.4	(D)	(D)
1445	Industrial sand, n.e.c.	3	3	.1	.5	.1	.2	.5	1.6	.7	1.9	.3	(D)	(D)
145	Clay and related minerals	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	18	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1476	Rock salt	5	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1477	Sulfur	12	9	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	5	5	.4	3.0	.3	.5	1.6	8.7	5.4	13.7	.4	(D)	(D)
1492	Gypsum	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	4	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	12	3	0.1	0.8	0.1	0.3	0.8	0.9	1.5	2.5	(NA)	(Z)	0.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Louisiana:													
	Establishments.....number..	1,382	1,338	351	-	2	349	51	3	36	12	95	839	44
	Employees.....1,000..	46.5	47.2	15.1	-	(D)	(D)	2.2	(D)	1.0	(D)	1.5	27.4	.2
	Value added in mining..mil.dol..	3,983.3	3,978.2	3,360.8	-	(D)	(D)	49.8	(D)	15.1	(D)	153.7	407.8	5.1
13	Oil and gas extraction:													
	Establishments.....number..	1,276	1,235	344	-	-	344	-	-	-	-	92	799	41
	Employees.....1,000..	42.1	(D)	14.1	-	-	14.1	-	-	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	3,773.7	(D)	3,215.8	-	-	3,215.8	-	-	-	-	(D)	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	522	488	344	-	-	344	-	-	-	-	-	142	36
	Employees.....1,000..	18.4	18.8	14.1	-	-	14.1	-	-	-	-	-	4.2	.1
	Value added in mining..mil.dol..	3,223.3	3,242.7	3,215.8	-	-	3,215.8	-	-	-	-	-	5.7	1.7
1321	Natural gas liquids:													
	Establishments.....number..	98	93	-	-	-	-	-	-	-	-	92	1	5
	Employees.....1,000..	1.4	(D)	-	-	-	-	-	-	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	152.4	(D)	-	-	-	-	-	-	-	-	(D)	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	656	656	-	-	-	-	-	-	-	-	-	656	-
	Employees.....1,000..	22.3	22.3	-	-	-	-	-	-	-	-	-	22.3	-
	Value added in mining..mil.dol..	398.3	398.3	-	-	-	-	-	-	-	-	-	398.3	-
14	Nonmetallic minerals except fuels:													
	Establishments.....number..	104	101	7	-	2	5	51	3	36	12	3	40	3
	Employees.....1,000..	4.2	(D)	.9	-	(D)	(D)	2.2	(D)	1.0	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	203.2	(D)	144.9	-	(D)	(D)	49.8	(D)	15.1	(D)	(D)	(D)	(D)
142	Crushed and broken stone:													
	Establishments.....number..	2	2	-	-	-	-	1	-	1	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	76	76	2	-	2	-	41	-	33	8	2	31	-
	Employees.....1,000..	1.3	1.3	(D)	-	(D)	-	1.0	-	(D)	(D)	(D)	.1	-
	Value added in mining..mil.dol..	18.0	18.0	(D)	-	(D)	-	15.0	-	(D)	(D)	(D)	1.7	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	-	1	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	18	15	4	-	-	4	5	3	-	2	1	5	3
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	(D)	(D)	.5	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	(D)	(D)	-	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	5	5	1	-	-	1	2	-	1	1	-	2	-
	Employees.....1,000..	.4	.4	(D)	-	-	(D)	(D)	-	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	8.7	8.7	(D)	-	-	(D)	(D)	-	(D)	(D)	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,382	1,454	Cost of supplies, total.....million dollars..	2,188.6	1,513.5
With 0 to 19 employees.....do....	955	1,101	Supplies used, minerals received for preparation, and purchased machinery.....do....	1,579.0	(NA)
With 20 to 99 employees.....do....	324	281	Cost of resales.....do....	11.3	(NA)
With 100 or more employees.....do....	103	72	Purchased fuels consumed.....do....	30.5	(NA)
All employees (average for year).....1,000..	46.5	45.7	Electric energy:		
			Quantity purchased.....million kw.-hrs..	473.0	(NA)
Payroll (all employees), total for year.....million dollars..	371.5	313.1	Cost.....million dollars..	6.2	(NA)
			Generated less sold.....million kw.-hrs..	643.0	(NA)
			Contract work.....million dollars..	561.3	418.5
Production, development, and exploration workers:					
Average for the year.....1,000..	34.2	34.9	Value of shipments and receipts (including resales), total.....do....	5,146.6	3,416.8
March.....do....	34.2	(NA)	Value of resales.....do....	12.8	(NA)
May.....do....	33.9	(NA)			
August.....do....	34.8	(NA)			
November.....do....	33.9	(NA)	Value added in mining.....do....	3,983.3	2,640.0
Man-hours.....millions..	75.8	76.7	Capital expenditures (except land and mineral rights), total.....do....	1,025.1	736.7
Wages.....million dollars..	245.3	215.4	Mineral development and exploration.....do....	476.3	418.3
			New structures and additions.....do....	232.8	318.4
Supplemental labor cost not included in payroll.....do..	39.8	(NA)	New machinery and equipment.....do....	305.3	
			Used plant and equipment.....do....	8.5	
			Mineral development and exploration expenditures, total.....do....	656.5	(NA)
Legally required expenditures, including Social Security contributions.....do..	19.7	(NA)	Capitalized.....do....	476.3	418.3
Payments for voluntary programs.....do..	20.1		Expensed.....do....	180.2	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by Parish and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Parish and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Louisiana, total	1,382	427	46.5	371.5	34.2	75.8	245.3	3,983.3	2,188.6	5,146.6	1,025.1	45.7	2,640.0
	PARISHES[2]													
	Acadia Parish, total	91	10	.7	5.5	.6	1.3	4.4	86.6	186.1	261.6	11.0	.8	69.9
13	Oil and gas extraction	91	10	.7	5.5	.6	1.3	4.4	86.6	186.1	261.6	11.0	.8	69.9
131	Crude petroleum and natural gas	51	1	.2	1.3	.1	.3	1.0	56.1	15.0	63.1	7.9	.2	48.9
132	Natural gas liquids	7	4	.2	1.3	.1	.3	1.0	24.2	168.9	190.6	2.5	.1	16.8
138	Oil and gas field services	33	5	.4	2.9	.4	.8	2.4	6.3	2.2	7.9	.6	.4	4.3
	Ascension Parish, total	18	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.8
13	Oil and gas extraction	18	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.8
	Assumption Parish, total	32	2	.1	.9	.1	.2	.6	27.8	5.8	31.6	2.0	.1	17.7
13	Oil and gas extraction	32	2	.1	.9	.1	.2	.6	27.8	5.8	31.6	2.0	.1	17.7
138	Oil and gas field services	11	2	.1	.6	.1	.2	.6	1.2	.4	1.5	.1	.1	.9
	Beauregard Parish, total	45	2	.2	1.5	.2	.4	1.2	11.7	4.7	13.1	3.3	.3	8.8
13	Oil and gas extraction	43	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	8.7
	Bossier Parish, total	63	3	.4	2.8	.3	.7	2.3	24.8	17.3	40.0	2.1	.4	30.8
13	Oil and gas extraction	63	3	.4	2.8	.3	.7	2.3	24.8	17.3	40.0	2.1	(D)	(D)
131	Crude petroleum and natural gas	38	-	.1	.8	.1	.2	.6	19.0	2.8	20.3	1.5	.1	23.2
138	Oil and gas field services	21	3	.2	1.6	.2	.4	1.5	3.2	1.0	3.5	.6	(D)	(D)
	Caddo Parish, total	235	34	2.6	18.7	1.5	3.4	9.5	27.4	12.2	35.3	4.3	2.3	51.8
13	Oil and gas extraction	235	34	2.6	18.7	1.5	3.4	9.5	27.4	12.2	35.3	4.3	(D)	(D)
131	Crude petroleum and natural gas	145	18	1.5	12.0	.7	1.5	4.9	14.6	8.2	19.7	3.1	1.2	40.7
138	Oil and gas field services	84	16	1.0	6.4	.8	1.7	4.5	12.2	2.7	13.6	1.2	1.0	10.2
	Calcasieu Parish, total	93	21	1.2	8.5	.9	1.9	6.3	52.1	27.3	67.2	12.2	1.2	27.9
13	Oil and gas extraction	92	20	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.2	27.9
131	Crude petroleum and natural gas	41	6	.5	3.6	.3	.6	2.4	31.7	6.4	30.3	7.8	.4	18.7
138	Oil and gas field services	49	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cameron Parish, total	97	15	1.0	7.0	.9	2.1	5.9	140.0	103.8	211.2	32.6	1.0	108.4
13	Oil and gas extraction	96	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	46	3	.2	1.9	.2	.4	1.2	127.6	30.2	133.3	24.5	.3	96.0
138	Oil and gas field services	43	10	.7	4.4	.6	1.6	4.0	7.9	3.6	10.7	.8	(D)	(D)
	Catahoula Parish, total	55	5	.3	1.4	.3	.4	1.2	8.9	3.6	11.4	1.1	.2	7.1
13	Oil and gas extraction	52	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	6.7
138	Oil and gas field services	24	2	.1	.8	.1	.3	.7	1.4	1.3	2.4	.3	.1	2.4
	Claiborne Parish, total	61	7	.4	2.6	.3	.6	1.8	18.7	12.2	28.7	2.2	.5	23.2
13	Oil and gas extraction	61	7	.4	2.6	.3	.6	1.8	18.7	12.2	28.7	2.2	(D)	(D)
131	Crude petroleum and natural gas	38	3	.1	1.1	.1	.2	.7	14.4	3.6	16.3	1.6	.2	17.5
138	Oil and gas field services	19	3	.2	1.1	.1	.3	.9	2.4	1.2	3.4	.3	(D)	(D)
	Concordia Parish, total	67	5	.4	2.6	.4	.8	2.3	23.9	5.8	26.7	3.0	.3	11.3
13	Oil and gas extraction	67	5	.4	2.6	.4	.8	2.3	23.9	5.8	26.7	3.0	.3	11.3
131	Crude petroleum and natural gas	37	3	.2	1.3	.2	.3	1.1	20.9	4.4	22.6	2.6	.1	9.9
138	Oil and gas field services	30	2	.3	1.3	.2	.5	1.2	3.0	1.4	4.0	.4	.2	1.4

TABLE 5. General Statistics by Parish and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Parish and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Louisiana--Continued													
	PARISHES[2]--Continued													
	De Soto Parish, total.....	38	4	.2	1.0	.1	.2	.6	8.4	1.2	8.6	1.1	.2	8.8
13	Oil and gas extraction.....	38	4	.2	1.0	.1	.2	.6	8.4	1.2	8.6	1.1	.2	8.8
131	Crude petroleum and natural gas.....	28	3	.1	.8	.1	.2	.4	7.8	.9	7.7	1.0	.1	8.3
	East Baton Rouge Parish, total..	25	5	.3	1.6	.2	.4	1.2	6.3	2.4	8.0	.7	.2	4.3
14	Nonmetallic minerals, except fuels.....	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.0
144	Sand and gravel.....	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.0
	Evangeline Parish.....	31	1	.1	.7	.1	.2	.6	5.9	1.2	6.7	.5	.2	9.5
	Iberia Parish, total.....	83	25	2.2	15.4	1.9	4.2	12.1	98.7	31.6	116.2	14.0	1.7	82.2
13	Oil and gas extraction.....	80	22	1.4	10.7	1.2	2.6	8.1	78.3	25.7	91.0	13.0	.9	66.6
131	Crude petroleum and natural gas.....	24	3	.4	3.0	.3	.5	2.1	66.9	14.5	69.9	11.4	.3	52.0
138	Oil and gas field services..	55	18	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	15.6
147	Chemical and fertilizer minerals.....	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Iberville Parish, total.....	44	5	.3	2.1	.2	.4	1.4	39.6	27.6	60.5	6.7	.3	27.9
13	Oil and gas extraction.....	44	5	.3	2.1	.2	.4	1.4	39.6	27.6	60.5	6.7	.3	27.9
131	Crude petroleum and natural gas.....	24	3	.2	1.3	.1	.2	.7	36.4	7.5	37.7	6.2	.1	25.3
138	Oil and gas field services..	19	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.6
	Jefferson Parish, total.....	78	27	2.5	21.3	1.6	3.9	12.8	134.2	51.7	154.2	31.7	2.1	59.3
13	Oil and gas extraction	71	23	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	24	7	1.0	9.0	.5	.9	3.8	60.9	14.8	67.8	7.9	1.0	41.2
138	Oil and gas field services..	46	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	7	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals.....	4	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jefferson Davis Parish, total...	73	9	.5	3.4	.4	.9	2.8	33.8	34.6	60.5	7.9	.5	50.1
13	Oil and gas extraction.....	72	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	31	8	.3	2.3	.3	.6	1.9	4.6	2.4	6.3	.7	(D)	(D)
	Lafayette Parish, total.....	137	38	2.5	21.2	1.5	3.1	10.6	22.9	7.8	25.5	5.2	2.0	24.2
13	Oil and gas extraction.....	135	38	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	48	22	1.5	14.3	.6	1.3	5.2	8.7	2.5	8.6	2.7	1.2	17.0
138	Oil and gas field services..	86	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lafourche Parish, total.....	108	22	1.5	12.5	1.2	3.0	8.9	195.3	57.2	215.1	37.4	1.7	154.8
13	Oil and gas extraction.....	106	22	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	154.8
131	Crude petroleum and natural gas.....	43	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	141.7
138	Oil and gas field services..	62	16	.9	7.0	.8	2.3	5.9	12.3	4.8	16.1	.9	1.0	13.2
	La Salle Parish, total.....	40	6	.4	2.6	.3	.7	2.2	14.2	4.1	15.7	2.6	.5	16.6
13	Oil and gas extraction.....	38	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	16.3
131	Crude petroleum and natural gas.....	20	3	.3	1.9	.2	.5	1.6	12.3	3.3	13.3	2.3	.3	13.7
	Lincoln Parish, total.....	32	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	12.9
13	Oil and gas extraction.....	32	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	12.9
132	Natural gas liquids.....	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.4

See footnotes at end of table.

TABLE 5. General Statistics by Parish and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Parish and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Louisiana--Continued													
	PARISHES[2]--Continued													
	Orleans Parish, total	99	37	5.5	56.2	1.0	2.1	7.8	36.8	10.2	41.5	5.5	2.2	11.7
13	Oil and gas extraction	91	31	4.8	50.4	.6	1.3	5.1	6.1	2.3	4.0	4.4	(D)	(D)
131	Crude petroleum and natural gas	56	24	4.3	45.8	.5	.9	3.8	3.2	.9	-	4.1	(D)	(D)
138	Oil and gas field services	35	7	.5	4.6	.2	.4	1.3	2.8	1.4	4.0	.3	.5	2.8
14	Nonmetallic minerals, except fuels	8	6	.7	5.8	.4	.8	2.7	30.7	7.9	37.5	1.1	(D)	(D)
147	Chemical and fertilizer minerals	3	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ouachita Parish, total	44	4	.3	1.7	.2	.4	1.0	8.1	3.9	11.0	1.0	.3	12.3
13	Oil and gas extraction	37	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	7	3	.1	.7	.1	.3	.5	2.0	.6	2.4	.2	(D)	(D)
	Plaquemines Parish, total	130	42	4.1	31.3	3.1	6.5	21.9	519.4	111.9	558.5	72.8	3.2	269.1
13	Oil and gas extraction	125	38	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	39	10	1.4	11.6	.9	1.9	7.3	421.2	86.7	444.6	63.3	1.4	221.3
138	Oil and gas field services	84	28	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	5	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Pointe Coupee Parish, total	26	7	.3	2.8	.3	.6	2.4	21.3	13.1	28.6	5.7	.1	5.7
13	Oil and gas extraction	25	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	10	5	.2	1.7	.1	.3	1.4	3.2	2.0	4.9	.3	(D)	(D)
	Rapides Parish, total	27	2	.2	1.1	.2	.4	1.0	4.0	(D)	14.2	(D)	.2	2.3
13	Oil and gas extraction	19	1	.1	.7	.1	.2	.6	3.1	(D)	12.9	(D)	.1	1.1
138	Oil and gas field services	10	1	.1	.5	.1	.2	.5	.6	.5	1.1	(Z)	(Z)	.4
	Sabine Parish, total	43	-	.1	.7	.1	.2	.6	3.6	1.2	4.3	.4	.5	12.3
13	Oil and gas extraction	43	-	.1	.7	.1	.2	.6	3.6	1.2	4.3	.4	.5	12.3
	St. Bernard Parish, total	24	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	64.0
13	Oil and gas extraction	24	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Charles Parish, total	32	4	.3	2.0	.2	.4	1.6	75.3	(D)	110.6	(D)	.3	44.7
13	Oil and gas extraction	32	4	.3	2.0	.2	.4	1.6	75.3	(D)	110.6	(D)	.3	44.7
131	Crude petroleum and natural gas	17	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	14	2	.1	.7	.1	.2	.6	1.1	.7	1.6	.2	.1	1.9
	St. Landry Parish, total	58	9	.5	3.6	.4	.9	2.8	38.9	24.2	59.5	3.6	.5	44.1
13	Oil and gas extraction	58	9	.5	3.6	.4	.9	2.8	38.9	24.2	59.5	3.6	.5	44.1
131	Crude Petroleum and natural gas	28	2	.1	1.2	.1	.2	.8	22.3	5.3	24.9	2.6	.1	21.2
138	Oil and gas field services	25	6	.3	1.9	.3	.5	1.6	4.4	1.9	5.5	.8	.3	4.9
	St. Martin Parish, total	83	9	.5	4.1	.5	.9	3.2	76.1	20.7	83.9	12.9	.4	60.8
13	Oil and gas extraction	83	9	.5	4.1	.5	.9	3.2	76.1	20.7	83.9	12.9	.4	60.8
131	Crude petroleum and natural gas	41	4	.2	1.6	.1	.3	1.1	71.0	18.8	77.1	12.7	.2	56.9
138	Oil and gas field services	41	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by Parish and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	Parish and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Louisiana--Continued													
	PARISHES[2]--Continued													
	St. Mary Parish, total.....	96	25	1.5	12.1	1.2	2.6	9.0	234.6	141.5	335.8	40.3	1.7	91.8
13	Oil and gas extraction.....	94	23	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	25	7	.5	4.7	.4	.8	3.0	200.2	45.8	217.4	28.6	.8	109.7
138	Oil and gas field services..	62	14	.8	5.9	.6	1.5	4.6	13.1	6.1	17.3	1.9	(D)	(D)
14	Nonmetallic minerals, except fuels.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Tammany Parish, total.....	9	2	.1	.6	.1	.2	.6	1.7	.7	1.9	.4	.1	2.0
14	Nonmetallic minerals, except fuels.....	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel.....	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Tensas Parish, total.....	31	1	.1	.8	.1	.2	.7	12.3	11.1	21.7	1.6	.2	15.8
13	Oil and gas extraction.....	31	1	.1	.8	.1	.2	.7	12.3	11.1	21.7	1.6	.2	15.8
	Terrebonne Parish, total.....	134	41	3.4	27.0	2.7	5.8	19.9	381.8	114.9	434.3	62.5	3.0	261.8
13	Oil and gas extraction.....	134	41	3.4	27.0	2.7	5.8	19.9	381.8	114.9	434.3	62.5	3.0	261.8
131	Crude petroleum and natural gas.....	45	11	1.6	14.0	1.2	2.5	9.8	350.6	70.0	368.6	52.0	1.3	240.0
138	Oil and gas field services..	83	30	1.8	12.7	1.4	3.3	9.7	28.4	10.1	35.4	3.0	(D)	(D)
	Union Parish, total.....	24	3	.1	1.0	.1	.2	.6	6.8	1.3	7.3	.8	.2	10.0
13	Oil and gas extraction.....	24	3	.1	1.0	.1	.2	.6	6.8	1.3	7.3	.8	.2	10.0
131	Crude petroleum and natural gas.....	18	3	.1	.9	.1	.2	.6	6.6	1.0	6.9	.7	.1	9.3
	Vermilion Parish, total.....	103	15	1.0	6.6	.8	1.7	5.1	113.0	116.6	206.9	22.7	1.1	82.0
13	Oil and gas extraction.....	102	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	48	3	.2	2.1	.1	.3	1.1	99.6	17.8	100.1	17.3	.4	69.1
138	Oil and gas field services..	50	10	.6	3.8	.6	1.2	3.3	6.4	3.7	8.3	1.7	(D)	(D)
	Webster Parish, total.....	47	8	.4	2.7	.3	.7	2.1	21.3	21.5	41.3	1.4	.5	23.6
13	Oil and gas extraction.....	44	5	.3	2.2	.3	.5	1.7	19.9	20.9	39.6	1.2	.4	22.9
132	Natural gas liquids.....	5	2	.1	1.0	.1	.2	.8	5.6	16.3	21.8	.1	.2	7.4
	Winn Parish, total.....	22	2	.2	1.2	.2	.4	1.1	5.3	1.0	5.2	1.0	.2	3.6
13	Oil and gas extraction.....	20	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Offshore.....	108	65	9.1	74.7	8.0	19.2	64.5	1,298.4	630.3	1,377.5	551.2	5.4	676.1
13	Oil and gas extraction.....	108	65	9.1	74.7	8.0	19.2	64.5	1,298.4	630.3	1,377.5	551.2	(D)	(D)
131	Crude petroleum and natural gas.....	33	13	2.6	22.2	2.2	4.8	18.7	1,132.0	525.6	1,156.0	501.6	1.2	592.8
138	Oil and gas field services..	75	52	6.5	52.5	5.8	14.4	45.9	166.5	104.7	221.5	49.6	4.1	83.4

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and Parish: 1967

(See appendix, Explanation fo Terms)

State, parish, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Louisiana, total	1,382	-	-	-	1,278	104
0 to 4 employees	572	-	-	-	545	27
5 to 9 employees	190	-	-	-	185	5
10 to 19 employees	193	-	-	-	169	24
20 to 49 employees	225	-	-	-	196	29
50 to 99 employees	99	-	-	-	91	8
100 to 249 employees	68	-	-	-	60	8
250 to 499 employees	22	-	-	-	19	3
500 to 999 employees	10	-	-	-	10	-
1,000 to 2,499 employees	3	-	-	-	3	-
Acadia Parish, total	91	-	-	-	91	-
0 to 19 employees	81	-	-	-	81	-
20 to 99 employees	10	-	-	-	10	-
Allen Parish, total	22	-	-	-	21	1
0 to 19 employees	22	-	-	-	21	1
Ascension Parish, total	18	-	-	-	18	-
0 to 19 employees	15	-	-	-	15	-
20 to 99 employees	3	-	-	-	3	-
Assumption Parish, total	32	-	-	-	32	-
0 to 19 employees	30	-	-	-	30	-
20 to 99 employees	2	-	-	-	2	-
Avoyelles Parish, total	13	-	-	-	13	-
0 to 19 employees	13	-	-	-	13	-
Beauregard Parish, total	45	-	-	-	43	2
0 to 19 employees	43	-	-	-	42	1
20 to 99 employees	2	-	-	-	1	1
Bienville Parish, total	28	-	-	-	27	1
0 to 19 employees	28	-	-	-	27	1
Bossier Parish, total	63	-	-	-	63	-
0 to 19 employees	60	-	-	-	60	-
20 to 99 employees	3	-	-	-	3	-
Caddo Parish, total	235	-	-	-	235	-
0 to 19 employees	201	-	-	-	201	-
20 to 99 employees	29	-	-	-	29	-
100 to 249 employees	5	-	-	-	5	-
Calcasieu Parish, total	93	-	-	-	92	1
0 to 19 employees	72	-	-	-	72	-
20 to 99 employees	20	-	-	-	19	1
100 to 249 employees	1	-	-	-	1	-
Caldwell Parish, total	6	-	-	-	6	-
0 to 19 employees	6	-	-	-	6	-
Cameron Parish, total	97	-	-	-	96	1
0 to 19 employees	82	-	-	-	81	1
20 to 99 employees	14	-	-	-	14	-
100 to 249 employees	1	-	-	-	1	-
Catahoula Parish, total	55	-	-	-	52	3
0 to 19 employees	50	-	-	-	49	1
20 to 99 employees	5	-	-	-	3	2
Claiborne Parish, total	61	-	-	-	61	-
0 to 19 employees	54	-	-	-	54	-
20 to 99 employees	7	-	-	-	7	-
Concordia Parish, total	67	-	-	-	67	-
0 to 19 employees	62	-	-	-	62	-
20 to 99 employees	5	-	-	-	5	-
De Soto Parish, total	38	-	-	-	38	-
0 to 19 employees	34	-	-	-	34	-
20 to 99 employees	4	-	-	-	4	-
East Baton Rouge Parish, total	25	-	-	-	15	10
0 to 19 employees	20	-	-	-	13	7
20 to 99 employees	5	-	-	-	2	3
East Carroll Parish, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and Parish: 1967—Continued

(See appendix, Explanation fo Terms)

State, parish, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Louisiana-Continued						
Evangeline Parish, total	31	-	-	-	30	1
0 to 19 employees	30	-	-	-	30	-
20 to 99 employees	1	-	-	-	-	1
Franklin Parish, total	12	-	-	-	11	1
0 to 19 employees	12	-	-	-	11	1
Grant Parish, total	8	-	-	-	6	2
0 to 19 employees	6	-	-	-	6	-
20 to 99 employees	2	-	-	-	-	2
Iberia Parish, total	83	-	-	-	80	3
0 to 19 employees	58	-	-	-	58	-
20 to 99 employees	20	-	-	-	20	-
100 to 249 employees	3	-	-	-	2	1
250 employees and over	2	-	-	-	-	2
Iberville Parish, total	44	-	-	-	44	-
0 to 19 employees	39	-	-	-	39	-
20 to 99 employees	5	-	-	-	5	-
Jackson Parish, total	16	-	-	-	16	-
0 to 19 employees	16	-	-	-	16	-
Jefferson Parish, total	78	-	-	-	71	7
0 to 19 employees	51	-	-	-	48	3
20 to 99 employees	21	-	-	-	18	3
100 to 249 employees	4	-	-	-	3	1
250 employees and over	2	-	-	-	2	-
Jefferson Davis Parish, total	73	-	-	-	72	1
0 to 19 employees	64	-	-	-	64	-
20 to 99 employees	9	-	-	-	8	1
Lafayette Parish, total	137	-	-	-	135	2
0 to 19 employees	99	-	-	-	97	2
20 to 99 employees	33	-	-	-	33	-
100 to 249 employees	5	-	-	-	5	-
Lafourche Parish, total	108	-	-	-	106	2
0 to 19 employees	86	-	-	-	84	2
20 to 99 employees	20	-	-	-	20	-
100 to 249 employees	2	-	-	-	2	-
La Salle Parish, total	40	-	-	-	38	2
0 to 19 employees	34	-	-	-	33	1
20 to 99 employees	5	-	-	-	4	1
100 to 249 employees	1	-	-	-	1	-
Lincoln Parish, total	32	-	-	-	32	-
0 to 19 employees	26	-	-	-	26	-
20 to 99 employees	6	-	-	-	6	-
Livingston Parish, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1
Madison Parish, total	3	-	-	-	2	1
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	-	1
Morehouse Parish, total	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-
Natchitoches Parish, total	5	-	-	-	5	-
0 to 19 employees	4	-	-	-	4	-
20 to 99 employees	1	-	-	-	1	-
Orleans Parish, total	99	-	-	-	91	8
0 to 19 employees	62	-	-	-	60	2
20 to 99 employees	22	-	-	-	20	2
100 to 249 employees	10	-	-	-	6	4
250 employees and over	5	-	-	-	5	-
Ouachita Parish, total	44	-	-	-	37	7
0 to 19 employees	40	-	-	-	36	4
20 to 99 employees	4	-	-	-	1	3

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and Parish: 1967—Continued

(See appendix, Explanation fo Terms)

State, parish, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Louisiana-Continued						
Plaquemines Parish, total	130	-	-	-	125	5
0 to 19 employees	88	-	-	-	87	1
20 to 99 employees	32	-	-	-	31	1
100 to 249 employees	6	-	-	-	4	2
250 employees and over	4	-	-	-	3	1
Pointe Coupee Parish, total	26	-	-	-	25	1
0 to 19 employees	19	-	-	-	19	-
20 to 99 employees	7	-	-	-	6	1
Rapides Parish, total	27	-	-	-	19	8
0 to 19 employees	25	-	-	-	18	7
20 to 99 employees	2	-	-	-	1	1
Red River Parish, total	14	-	-	-	11	3
0 to 19 employees	13	-	-	-	11	2
20 to 99 employees	1	-	-	-	-	1
Richland Parish, total	18	-	-	-	18	-
0 to 19 employees	17	-	-	-	17	-
20 to 99 employees	1	-	-	-	1	-
Sabine Parish, total	43	-	-	-	43	-
0 to 19 employees	43	-	-	-	43	-
St. Bernard Parish, total	24	-	-	-	24	-
0 to 19 employees	21	-	-	-	21	-
20 to 99 employees	3	-	-	-	3	-
St. Charles Parish, total	32	-	-	-	32	-
0 to 19 employees	28	-	-	-	28	-
20 to 99 employees	4	-	-	-	4	-
St. Helena Parish, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
St. James Parish, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
St. John The Baptist Parish, total	14	-	-	-	14	-
0 to 19 employees	14	-	-	-	14	-
St. Landry Parish, total	58	-	-	-	58	-
0 to 19 employees	49	-	-	-	49	-
20 to 99 employees	9	-	-	-	9	-
St. Martin Parish, total	83	-	-	-	83	-
0 to 19 employees	74	-	-	-	74	-
20 to 99 employees	9	-	-	-	9	-
St. Mary Parish, total	96	-	-	-	94	2
0 to 19 employees	71	-	-	-	71	-
20 to 99 employees	24	-	-	-	22	2
250 employees and over	1	-	-	-	1	-
St. Tammany Parish, total	9	-	-	-	3	6
0 to 19 employees	7	-	-	-	3	4
20 to 99 employees	2	-	-	-	-	2
Tangipahoa Parish, total	14	-	-	-	6	8
0 to 19 employees	12	-	-	-	6	6
20 to 99 employees	2	-	-	-	-	2
Tensas Parish, total	31	-	-	-	31	-
0 to 19 employees	30	-	-	-	30	-
20 to 99 employees	1	-	-	-	1	-
Terrebonne Parish, total	134	-	-	-	134	-
0 to 19 employees	93	-	-	-	93	-
20 to 99 employees	36	-	-	-	36	-
100 to 249 employees	4	-	-	-	4	-
250 employees and over	1	-	-	-	1	-
Union Parish, total	24	-	-	-	24	-
0 to 19 employees	21	-	-	-	21	-
20 to 99 employees	3	-	-	-	3	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and Parish: 1967—Continued

(See appendix, Explanation fo Terms)

State, parish, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Louisiana-Continued						
Vermilion Parish, total	103	-	-	-	102	1
0 to 19 employees	88	-	-	-	87	1
20 to 99 employees	14	-	-	-	14	-
100 to 249 employees	1	-	-	-	1	-
Vernon Parish, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Washington Parish, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
Webster Parish, total	47	-	-	-	44	3
0 to 19 employees	39	-	-	-	39	-
20 to 99 employees	8	-	-	-	5	3
West Baton Rouge Parish, total	10	-	-	-	10	-
0 to 19 employees	10	-	-	-	10	-
West Carroll Parish, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
West Feliciana Parish, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Winn Parish, total	22	-	-	1	20	1
0 to 19 employees	21	-	-	1	19	-
20 to 99 employees	2	-	-	-	1	1
Offshore	108	-	-	-	108	-
0 to 19 employees	43	-	-	-	43	-
20 to 99 employees	40	-	-	-	40	-
100 to 249 employees	13	-	-	-	13	-
250 employees and over	12	-	-	-	12	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-890

1967 CENSUS OF Mineral Industries



MIC67(2)-18

AREA STATISTICS

MAINE

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	5
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	6
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

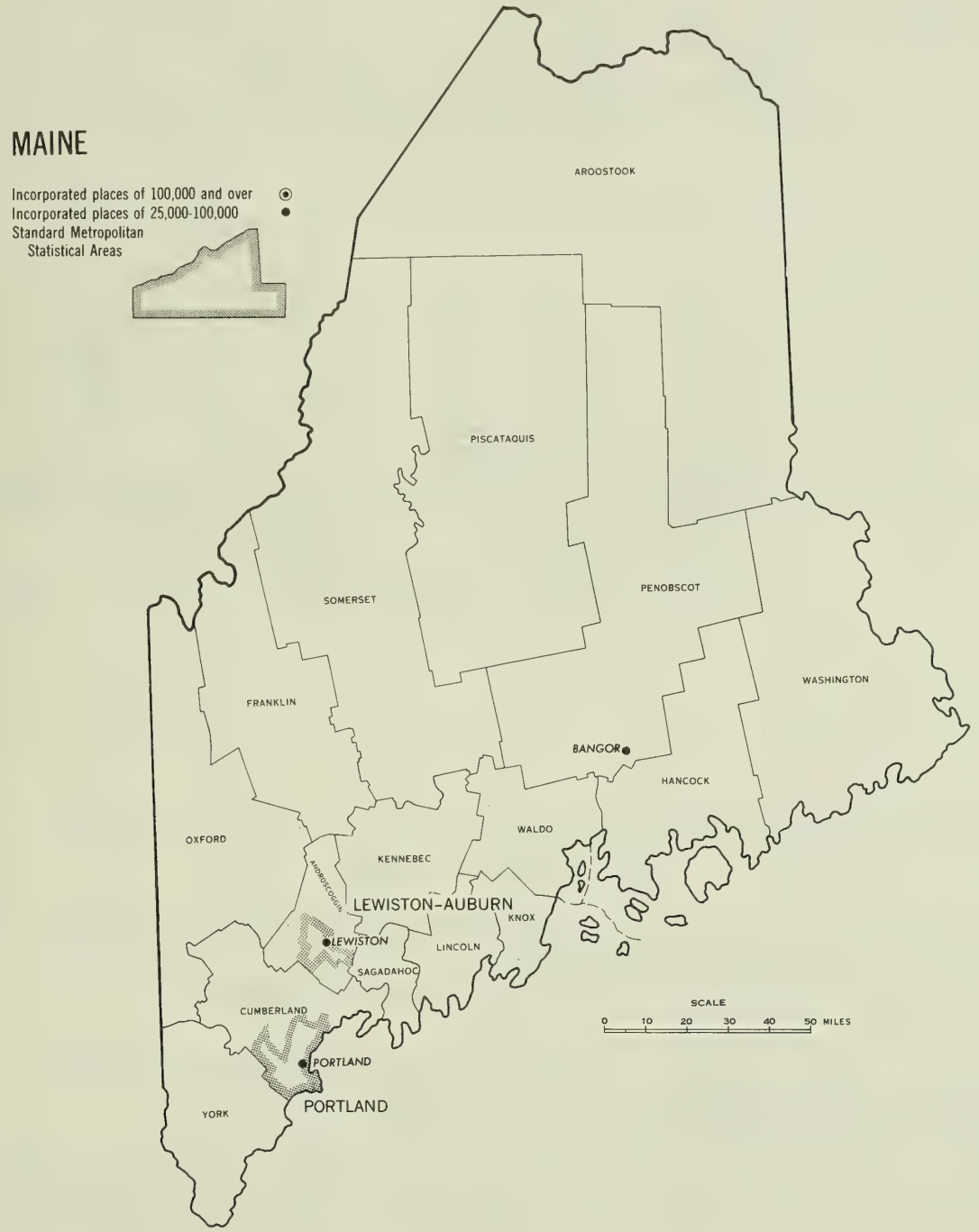
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]34	4	.3	1.3	.2	.5	1.1	3.0
1963	[1]45	2	.2	.8	.2	.4	.7	1.5
1958	55	2	.3	1.0	.3	.5	.9	2.1
1954	66	3	.3	.9	.3	.6	.9	1.8
Including operations in manufactures:								
1967	46	6	.5	2.2	.4	.8	1.9	4.7
1963	64	8	.5	2.1	.5	1.0	2.0	3.7
1958	68	7	.6	2.0	.5	1.1	1.8	4.4
1954[2]	77	10	.7	2.3	.7	1.3	2.1	4.3
1939[3]	[4]34	(NA)	.4	.4	.4	.7	.4	1.1
1929[5]	52	(NA)	1.3	1.8	1.2	(NA)	1.6	3.0
1919[6]	50	(NA)	1.0	1.2	1.0	(NA)	1.1	1.5
1909[6]	100	(NA)	2.3	1.5	2.2	(NA)	1.3	1.7
1902[7]	[4]135	(NA)	3.9	2.5	[8]3.7	(NA)	2.3	3.2

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]2.3	([10])	.3	([10])	2.8	2.8	(NA)
1963	.5	(Z)	(Z)	.3	2.0	.3	(Z)
1958	.8	-	.1	.3	2.8	.4	.1
1954	.4	(Z)	.1	.2	2.2	.4	(Z)
Including operations in manufactures:							
1967	[11]3.3	([11])	([11])	([11])	5.2	(NA)	(NA)
1963	[12]1.2	([12])	(Z)	.3	4.8	(NA)	(NA)
1958	[12]1.4	([12])	[12].1	[13].3	5.7	[13].5	[13].1
1954[2]	[12].8	.1	[12].1	[13].3	5.2	[13].4	[13](Z)
1939[3]	.1	(NA)	(Z)	(NA)	1.3	(NA)	(Z)
1929[5]	.4	(NA)	(Z)	.1	3.5	(NA)	.1
1919[6]	.3	-	(Z)	(NA)	1.8	(NA)	[14].1
1909[6]	.3	-	(Z)	(NA)	2.1	(NA)	(NA)
1902[7]	.5	(NA)	-	(NA)	3.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represent zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or under 50 employees,

[1] In 1967, for the first time, data for single unit establishments without paid employees were excluded from the census. In 1963, there were 9 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes data for sand and gravel mining operations in manufacturing establishments.

[3] Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operation was $383 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for slate is not available. Excludes data for one nonproducing operation.

[4] Represents number of mines and quarries.

[5] Excludes data for common clay and shale and peat operations. There were 6 such mines in 1939, with products valued at less than $100 thousand.

[6] Excludes data for sand and gravel operations and stone quarries operated as parts of cement and lime establishments. There were 6 such establishments in 1929; the value of limestone produced at 3 of these establishments was $282 thousand. For 1919, excludes one nonproducing establishment. See also footnote 5.

[7] Excludes data for sand and gravel, common clay, and shale operations. Includes data for lime plants producing lime valued at $742 thousand.

[8] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishments in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11] Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For 1963 and 1958, the cost of dimension stone received for preparation is included with the cost of supplies purchases for resale, and purchased fuels and electric energy.

[13] Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[14] Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 8 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	34	4	.3	1.3	.2	.5	1.1	3.0	2.6	2.8	2.8	.2	1.5
10	Metal mining	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1021	Copper ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, exc. fuels	30	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone	4	1	.1	.3	.1	.1	.3	.9	.5	1.3	.1	(NA)	(NA)
1422	Crushed and broken limestone	4	1	.1	.3	.1	.1	.3	.9	.5	1.3	.1	(NA)	(NA)
144	Sand and gravel	16	2	.1	.5	.1	.2	.4	.7	.3	.9	.1	.1	.9
1442	Construction sand and gravel	16	2	.1	.5	.1	.2	.4	.7	.3	.9	.1	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc.	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	12	2	[1]0.2	[1]0.9	[1]0.2	0.3	0.8	1.7	0.7	2.4	(NA)	[1]0.3	2.2

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Maine:													
	Establishments.....number..	34	32	9	-	9	-	11	-	10	1	-	12	2
	Employees.....1,000..	.3	(D)	(D)	-	(D)	-	.1	-	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	3.0	(D)	(D)	-	(D)	-	1.5	-	(D)	(D)	-	(D)	(D)
10	Metal mining:													
	Establishments.....number..	4	2	2	-	2	-	-	-	-	-	-	-	2
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
1021	Copper ores:													
	Establishments.....number..	2	1	1	-	1	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
109	Miscellaneous metal ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	30	30	7	-	7	-	11	-	10	1	-	12	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.1	-	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	1.5	-	(D)	(D)	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	4	4	1	-	1	-	3	-	3	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.9	.9	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	16	16	-	-	-	-	5	-	5	-	-	11	-
	Employees.....1,000..	.1	.1	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	.7	.7	-	-	-	-	(D)	-	(D)	-	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	1	-	1	-	1	-	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	-	(D)	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	4	4	2	-	2	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	34	45	Cost of supplies, total.....million dollars..	2.6	.8
With 0 to 19 employees.....do....	30	43	Supplies used, minerals received for preparation, and purchased machinery.....do....	1.9	(NA)
With 20 to 99 employees.....do....	4	2	Cost of resales.....do....	.2	(NA)
With 100 or more employees.....do....	-	-	Purchased fuels consumed.....do....	.1	(NA)
All employees (average for year).....1,000..	.3	.2	Electric energy:		
			Quantity purchased.....million kw.-hrs..	4.5	(NA)
Payroll (all employees), total for year.....million dollars..	1.3	.8	Cost.....million dollars..	.1	(NA)
			Generated less sold.....million kw.-hrs..	-	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	.3	(Z)
Average for the year.....1,000..	.2	.2	Value of shipments and receipts (including resales), total.....do....	2.8	2.0
March.....do....	.2	(NA)	Value of resales.....do....	.2	(NA)
May.....do....	.2	(NA)			
August.....do....	.3	(NA)	Value added in mining.....do....	3.0	1.5
November.....do....	.2	(NA)			
			Capital expenditures (except land and mineral rights), total.....do....	2.8	.3
Man-hours.....millions..	.5	.4	Mineral development and exploration.....do....	1.0	(Z)
			New structures and additions.....do....	.6	
Wages.....million dollars..	1.1	.7	New machinery and equipment.....do....	1.0	.3
			Used plant and equipment.....do....	.1	
Supplemental labor cost not included in payroll.....do..	.1	(NA)			
			Mineral development and exploration expenditures, total.....do....	1.1	(NA)
Legally required expenditures, including Social Security contributions.....do..	.1	(NA)	Capitalized.....do....	1.0	(Z)
Payments for voluntary programs.....do..	(Z)	(NA)	Expensed.....do....	.1	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Maine, total.....	34	4	.3	1.3	.2	.5	1.1	3.0	2.6	2.8	2.8	.2	1.5
	COUNTIES													
	(County data not shown for this table because of disclosure problems.)													

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Maine, total	34	4	-	-	-	30
0 to 4 employees	20	2	-	-	-	18
5 to 9 employees	6	1	-	-	-	5
10 to 19 employees	4	-	-	-	-	4
20 to 49 employees	3	-	-	-	-	3
50 to 99 employees	1	1	-	-	-	-
Androscoggin county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Aroostook county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cumberland county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Franklin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hancock county, total	5	3	-	-	-	2
0 to 19 employees	4	2	-	-	-	2
20 to 99 employees	1	1	-	-	-	-
Knox county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Oxford county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Penobscot county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Sagadahoc county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Somerset county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Waldo county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Washington county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
York county, total	6	-	-	-	-	6
0 to 19 employees	6	-	-	-	-	6

Standard Notes: - Represents zero.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 431-995/1387

1967 CENSUS OF Mineral Industries



MIC67(2)-19

AREA STATISTICS

MARYLAND, DELAWARE, AND DISTRICT OF COLUMBIA

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Maps	1
TABLE 1	General Statistics: 1967 and Earlier Years	4
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	5
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	9
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

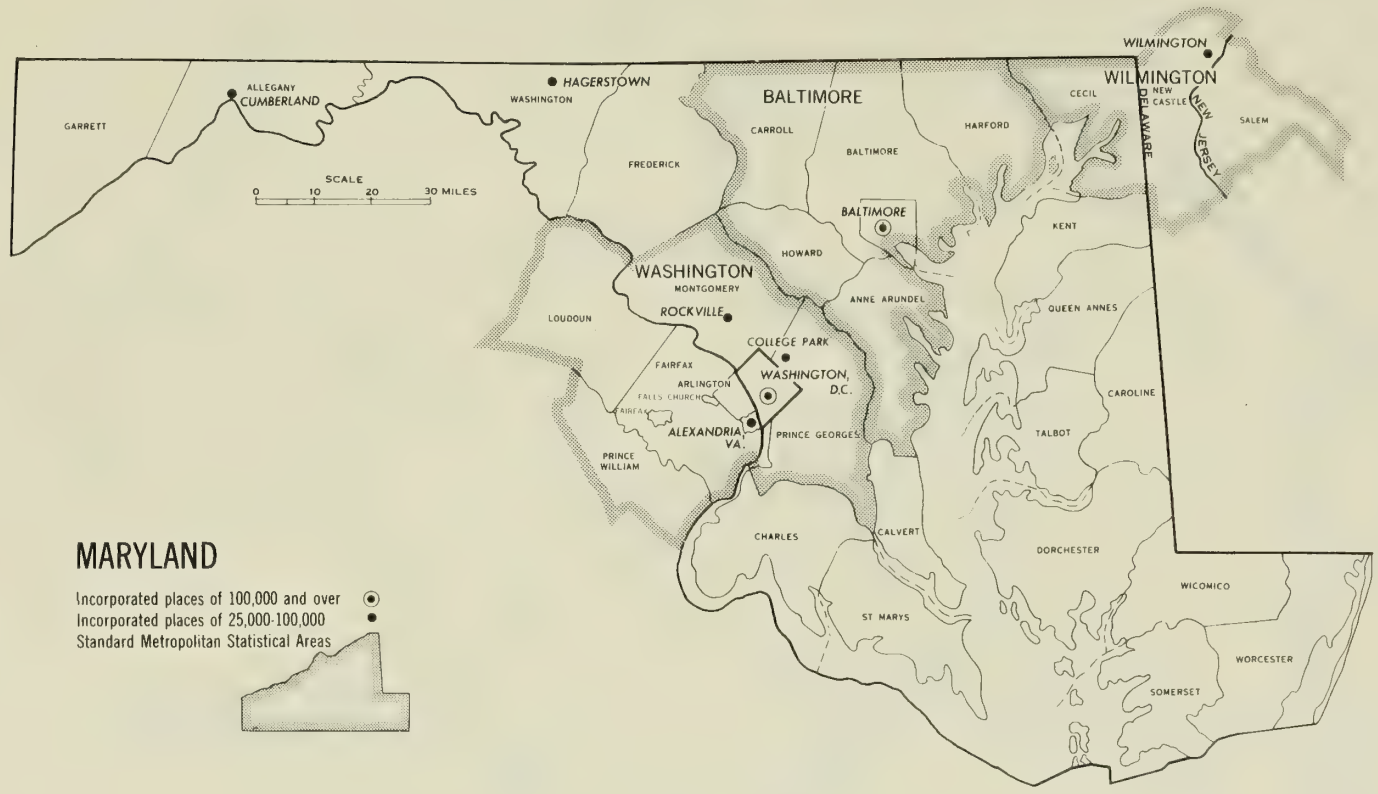
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

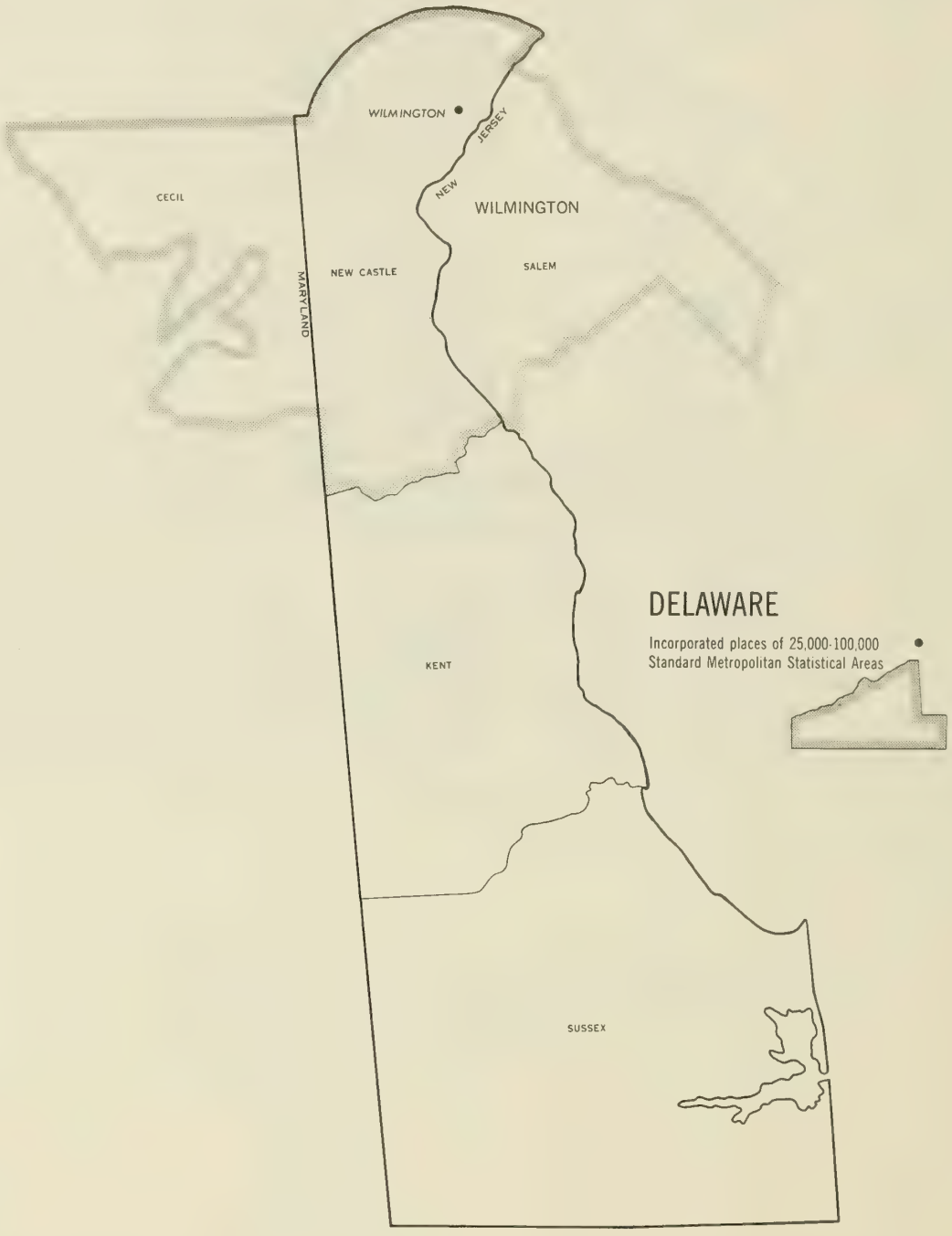


MARYLAND

Incorporated places of 100,000 and over ⊙
Incorporated places of 25,000-100,000 ●
Standard Metropolitan Statistical Areas

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS


WILMINGTON
NEW JERSEY
CECIL
WILMINGTON
NEW CASTLE
SALEM
MARYLAND
KENT
SUSSEX
DELAWARE
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
SCALE
0
10
20 MILES
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

WASHINGTON, D.C.-MD.-VA., STANDARD METROPOLITAN STATISTICAL AREA



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]153	33	2.2	14.7	1.8	4.0	10.2	35.3
1963	[1]179	32	2.4	12.8	2.0	4.3	9.6	35.3
1958	176	30	2.3	9.7	2.0	3.8	7.5	22.6
1954	196	30	2.0	7.1	1.8	4.1	6.1	17.9
Including operations in manufactures:								
1967	169	38	2.4	15.8	2.0	4.4	11.2	40.9
1963	207	36	2.8	14.3	2.4	5.1	11.1	39.8
1958	208	31	2.5	10.6	2.2	4.2	8.4	27.5
1954[2]	216	32	2.2	7.6	1.9	4.4	6.6	20.6
1939[3]	[4]180	(NA)	3.9	3.9	3.6	6.1	3.4	7.2
1929[5]	112	(NA)	4.9	5.7	4.6	(NA)	4.8	8.1
1919[6]	136	(NA)	6.2	7.1	5.8	(NA)	6.3	8.4
1909[6]	140	(NA)	8.1	4.0	7.7	(NA)	3.6	5.5
1902[7]	[4]217	(NA)	7.6	4.9	[8]7.2	(NA)	4.5	6.8

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]19.1	([10])	2.8	([10])	52.0	5.2	(NA)
1963	9.6	2.3	2.3	3.0	47.4	4.9	.4
1958	8.9	2.5	2.0	3.3	35.5	3.9	.3
1954	5.2	-	.7	2.2	24.1	1.9	.5
Including operations in manufactures:							
1967	[11]22.9	([11])	([11])	([11])	58.6	(NA)	(NA)
1963	[12]11.4	2.3	[12]2.3	[13]3.0	53.8	[13]4.9	[13].4
1958	[12]9.8	2.5	[12]2.0	[13]3.3	41.3	[13]3.9	[13].3
1954[2]	[12]5.6	-	[12].7	[13]2.2	27.1	[13]1.9	[13].5
1939[3]	1.4	(NA)	.1	(NA)	8.7	(NA)	.4
1929[5]	3.0	(NA)	-	.5	11.1	(NA)	.5
1919[6]	1.5	-	(Z)	(NA)	10.0	(NA)	[14].5
1909[6]	.8	-	(Z)	(NA)	6.3	(NA)	(NA)
1902[7]	.8	(NA)	(Z)	(NA)	7.6	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 10 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing sandstone at such operations was $1 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for granite is not available.

[4]Represents number of mines and quarries.

[5]Represents Maryland only. For 1929, only 5 establishments with 104 production and development workers were reported for Delaware and the District of Columbia. Excludes data for common clay and shale operations. There were 13 such mines in Maryland in 1939 with products valued at $168 thousand.

[6]Excludes data for sand, gravel, common clay, and shale operations, and for stone quarries operated as parts of cement and lime plants. For 1929 in Maryland, there were 10 such common sand and gravel establishments, with products valued at $3,781 thousand, one such glass sand establishment, and 3 such stone quarrying operations.

[7]Excludes data for sand, gravel, common clay, and shale operations, stone quarrying operations at 4 cement plants, and 2 nonproducing establishments. Includes data for lime plants producing lime valued at $326 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments and, for 1963, dimension stone operations in manufactures.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 4 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	153	33	2.2	14.7	1.8	4.0	10.2	35.3	21.9	52.0	5.2	2.4	35.3
12	Bituminous coal and lignite mining (Maryland)	40	5	.3	1.7	.3	.5	1.6	4.0	2.0	5.6	.4	.4	3.7
121	Bituminous coal and lignite mining	40	5	.3	1.7	.3	.5	1.6	4.0	2.0	5.6	.4	.4	3.7
1211	Bituminous coal	39	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	3.7
13	Oil and gas extraction	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1311	Crude petroleum and natural gas	10	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Crude petroleum	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	100	26	1.8	11.3	1.5	3.4	8.5	30.8	19.9	45.9	4.8	1.9	30.8
142	Crushed and broken stone (Maryland)	31	12	.8	5.0	.7	1.6	3.9	15.7	10.8	24.5	2.1	.8	13.3
1422	Crushed and broken limestone	18	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	6.9
1423	Crushed and broken granite	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	10	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel	52	11	.8	5.4	.6	1.5	3.9	12.6	7.4	17.4	2.6	1.1	15.9
1442	Construction sand and gravel	49	10	.8	5.1	.5	1.5	3.6	11.9	6.8	16.4	2.4	(D)	(D)
145	Clay and related minerals (Maryland)	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	16	5	0.2	1.1	0.2	0.4	1.0	5.6	1.0	6.6	(NA)	(NA)	(NA)
142	Crushed and broken stone (limestone)	4	2	0.1	0.5	0.1	0.2	0.5	2.3	0.4	2.8	(NA)	(NA)	(NA)
144	Sand and gravel	3	2	0.1	0.4	0.1	0.2	0.4	2.6	0.4	3.0	(NA)	0.1	1.3

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Maryland, Delaware, and District of Columbia:													
	Establishments.....number..	153	151	47	28	17	2	67	3	57	7	4	33	2
	Employees.....1,000..	2.2	(D)	.3	(D)	(D)	(D)	1.5	(D)	1.2	(D)	(D)	.4	(D)
	Value added in mining..mil.dol..	35.3	(D)	3.8	(D)	(D)	(D)	28.6	(D)	23.6	(D)	(D)	2.6	(D)
10	Metal mining:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
1081	Metal mining services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	40	39	31	26	5	-	5	2	2	1	2	1	1
	Employees.....1,000..	.3	(D)	(D)	(D)	.1	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	4.0	(D)	(D)	(D)	.9	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	40	39	31	26	5	-	5	2	2	1	2	1	1
	Employees.....1,000..	.3	(D)	(D)	(D)	.1	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	4.0	(D)	(D)	(D)	.9	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	11	10	2	-	-	2	-	-	-	-	-	8	1
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	10	9	2	-	-	2	-	-	-	-	-	7	1
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	.1	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(Z)	(D)
138	Oil and gas field services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	100	100	14	2	12	-	62	1	55	6	2	22	-
	Employees.....1,000..	1.8	1.8	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)	.2	-
	Value added in mining..mil.dol..	30.8	30.8	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)	2.5	-
141	Dimension stone:													
	Establishments.....number..	5	5	4	-	4	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	31	31	2	1	1	-	29	1	28	-	-	-	-
	Employees.....1,000..	.8	.8	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining..mil.dol..	15.7	15.7	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	52	52	4	-	4	-	26	-	20	6	1	21	-
	Employees.....1,000..	.8	.8	(Z)	-	(Z)	-	(D)	-	.3	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	12.6	12.6	.6	-	.6	-	(D)	-	5.9	(D)	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	3	3	1	1	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Maryland, Delaware, and District of Columbia--Continued													
14	Nonmetallic minerals, except fuels--Continued													
147	Chemical and fertilizer minerals:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	8	8	3	-	3	-	4	-	4	-	-	1	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	.5	.5	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	153	179	Cost of supplies, total.....million dollars..	21.9	17.1
With 0 to 19 employees.....do....	123	147	Supplies used, minerals received for preparation, and purchased machinery.....do....	15.3	(NA)
With 20 to 99 employees.....do....	33	29	Cost of resales.....do....	1.0	(NA)
With 100 or more employees.....do....	2	3	Purchased fuels consumed.....do....	1.6	(NA)
All employees (average for year).....1,000..	2.2	2.4	Electric energy:		
Payroll (all employees), total for year.....million dollars..	14.7	12.8	Quantity purchased.....million kw.-hrs..	61.2	(NA)
			Cost.....million dollars..	1.2	(NA)
			Generated less sold.....million kw.-hrs..	-	(NA)
			Contract work.....million dollars..	2.8	2.3
Production, development, and exploration workers:					
Average for the year.....1,000..	1.8	2.0	Value of shipments and receipts (including resales), total.....do....	52.0	47.4
March.....do....	1.7	(NA)	Value of resales.....do....	1.2	(NA)
May.....do....	1.8	(NA)			
August.....do....	1.9	(NA)			
November.....do....	1.8	(NA)	Value added in mining.....do....	35.3	35.3
Man-hours.....millions..	4.0	4.3	Capital expenditures (except land and mineral rights), total.....do....	5.2	4.9
Wages.....million dollars..	10.2	9.6	Mineral development and exploration.....do....	.1	.7
			New structures and additions.....do....	.6	
Supplemental labor cost not included in payroll.....do..	1.5	(NA)	New machinery and equipment.....do....	4.1	4.3
			Used plant and equipment.....do....	.5	
Legally required expenditures, including Social Security contributions.....do..	1.0	(NA)	Mineral development and exploration expenditures, total.....do....	.2	(NA)
Payments for voluntary programs.....do..	.5	(NA)	Capitalized.....do....	.1	.7
			Expensed.....do....	.1	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Maryland, Delaware, and District of Columbia, total	153	33	2.2	14.7	1.8	4.0	10.2	35.3	21.9	52.0	5.2	2.4	35.3
	COUNTIES[2]													
	Allegany county, total.....	29	4	.3	1.5	.2	.5	1.3	3.4	2.6	5.5	.5	.2	2.9
12	Bituminous coal and lignite mining.....	23	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.9
121	Bituminous coal and lignite mining.....	23	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	5	2	.1	.7	.1	.2	.6	1.8	1.4	3.0	.3	(D)	(D)
	Baltimore county, total.....	17	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	6.1
14	Nonmetallic minerals, except fuels.....	15	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone....	7	3	.2	1.0	.2	.3	.8	5.6	2.0	6.5	1.1	.2	4.8
144	Sand and gravel.....	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cecil county, total.....	7	3	.1	.7	.1	.3	.6	2.3	3.4	4.1	1.7	.1	2.9
14	Nonmetallic minerals, except fuels.....	7	3	.1	.7	.1	.3	.6	2.3	3.4	4.1	1.7	(D)	(D)
	Frederick county, total.....	5	3	.2	1.3	.2	.5	1.2	2.5	2.5	4.7	.2	(D)	(D)
14	Nonmetallic minerals, except fuels.....	5	3	.2	1.3	.2	.5	1.2	2.5	2.5	4.7	.2	(D)	(D)
142	Crushed and broken stone....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Garrett county, total.....	24	3	.2	1.0	.2	.3	.9	2.8	1.0	3.5	.2	.3	2.7
12	Bituminous coal and lignite mining.....	16	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	1.9
121	Bituminous coal and lignite mining.....	16	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Harford county, total.....	11	1	.1	.6	.1	.3	.5	1.7	1.0	2.5	.2	.1	.8
14	Nonmetallic minerals, except fuels.....	11	1	.1	.6	.1	.3	.5	1.7	1.0	2.5	.2	.1	.8
	Prince Georges county, total....	8	4	.2	1.2	.2	.4	.9	2.6	1.0	3.5	.1	.5	8.3
14	Nonmetallic minerals, except fuels.....	8	4	.2	1.2	.2	.4	.9	2.6	1.0	3.5	.1	.5	8.3
144	Sand and gravel.....	8	4	.2	1.2	.2	.4	.9	2.6	1.0	3.5	.1	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Maryland, total	136	2	-	40	7	87
0 to 4 employees	50	1	-	22	5	22
5 to 9 employees	30	1	-	9	1	19
10 to 19 employees	25	-	-	4	-	21
20 to 49 employees	26	-	-	5	1	20
50 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	-	-	-	-	1
Allegany county, total	29	-	-	23	1	5
0 to 19 employees	25	-	-	21	1	3
20 to 99 employees	4	-	-	2	-	2
Anne Arundel county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Baltimore City, total	7	2	-	1	1	3
0 to 19 employees	6	2	-	1	-	3
20 to 99 employees	1	-	-	-	1	-
Baltimore county, total	17	-	-	-	2	15
0 to 19 employees	11	-	-	-	2	9
20 to 99 employees	6	-	-	-	-	6
Calvert county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Caroline county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Carroll county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Cecil county, total	7	-	-	-	-	7
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	3	-	-	-	-	3
Charles county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Frederick county, total	5	-	-	-	-	5
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Garrett county, total	24	-	-	16	2	6
0 to 19 employees	21	-	-	13	2	6
20 to 99 employees	3	-	-	3	-	-
Harford county, total	11	-	-	-	-	11
0 to 19 employees	10	-	-	-	-	10
20 to 99 employees	1	-	-	-	-	1
Howard county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Kent county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Montgomery county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Prince Georges county, total	8	-	-	-	-	8
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	4	-	-	-	-	4
St. Marys county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Washington county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Wicomico county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Delaware, total	13	-	-	-	1	12
0 to 4 employees	6	-	-	-	-	6
5 to 9 employees	3	-	-	-	-	3
10 to 19 employees	3	-	-	-	-	3
20 to 49 employees	1	-	-	-	1	-
Kent county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
New Castle county, total	8	-	-	-	2	6
0 to 19 employees	7	-	-	-	1	6
20 to 99 employees	1	-	-	-	1	-
Sussex county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
District of Columbia, total	4	-	-	-	3	1
0 to 4 employees	3	-	-	-	3	-
100 to 249 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-891

1967 CENSUS OF Mineral Industries



MIC67(2)-20

AREA STATISTICS

MASSACHUSETTS

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

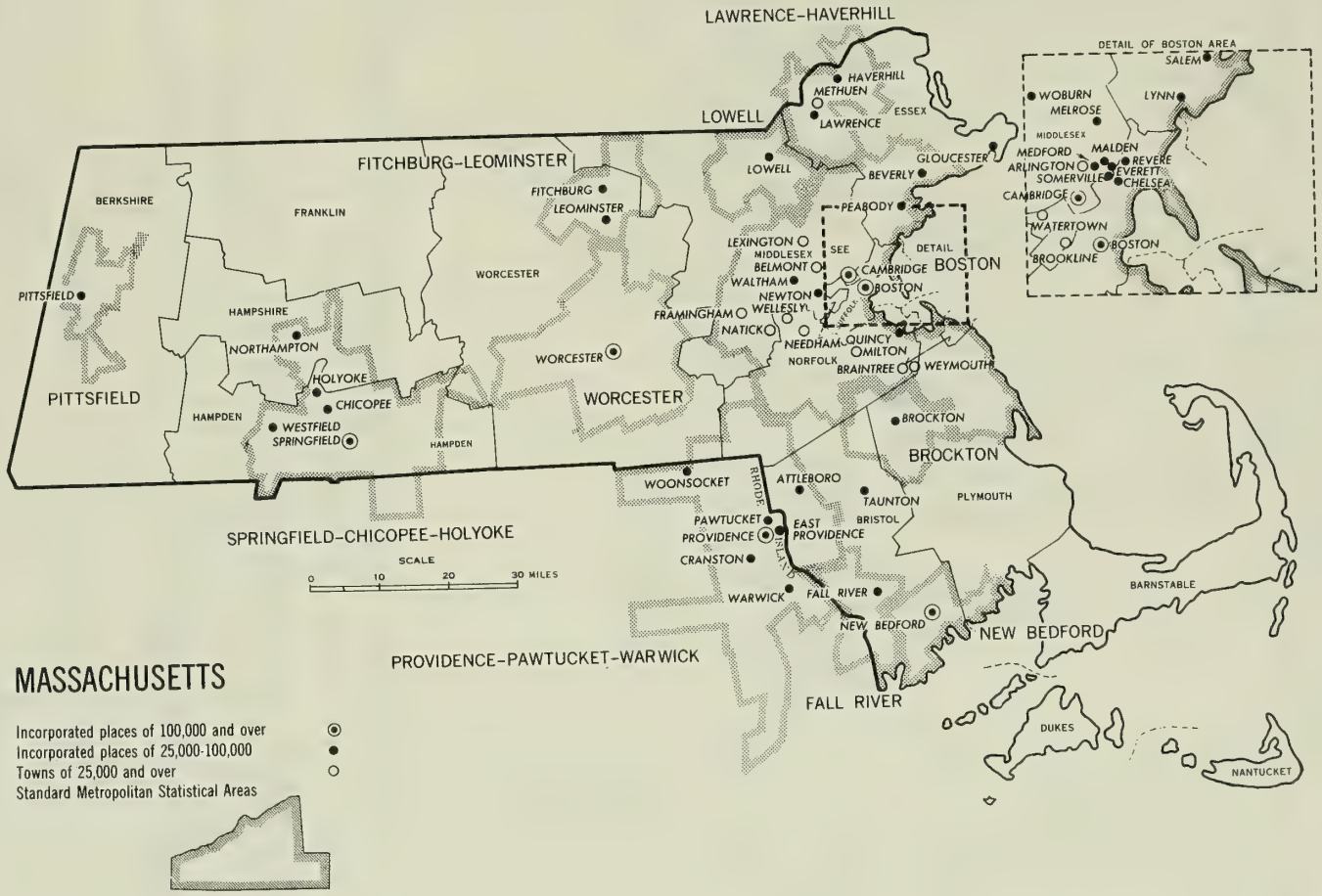
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]111	19	1.3	11.0	.9	1.9	5.9	17.0
1963	[1]128	24	1.7	10.1	1.2	2.6	6.5	16.9
1958	111	12	1.3	7.1	.8	1.8	3.9	10.6
1954	127	13	1.2	4.9	1.0	2.1	3.8	8.9
Including operations in manufactures:								
1967	137	22	1.8	14.0	1.3	2.7	8.2	22.5
1963	158	31	2.2	13.3	1.7	3.6	9.0	25.3
1958	144	15	1.9	10.2	1.4	2.8	6.3	18.7
1954[2]	148	16	1.9	8.1	1.6	3.4	6.3	14.7
1939[3]	[4]112	(NA)	1.6	2.5	1.2	2.5	1.5	4.6
1929[5]	95	(NA)	2.7	4.9	2.4	(NA)	4.0	8.7
1919[6]	74	(NA)	1.9	2.4	1.7	(NA)	2.1	3.4
1909[6]	140	(NA)	3.5	2.2	3.3	(NA)	2.0	2.9
1902[7]	[4]251	(NA)	4.6	2.8	[8]4.2	(NA)	2.5	3.9

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]8.1	([10])	1.6	([10])	24.5	2.2	(NA)
1963	[11]5.5	([11])	.5	2.7	22.4	3.1	.4
1958	3.4	-	.4	1.0	14.2	1.2	.2
1954	2.4	(Z)	.3	1.6	11.6	1.7	.1
Including operations in manufactures:							
1967	[12]11.5	([12])	([12])	([12])	31.7	(NA)	(NA)
1963	[13]8.3	.6	[13].5	[14]2.8	33.8	[14]3.2	(NA)
1958	[13]5.0	-	[13].4	[14]1.0	23.8	[14]1.3	[14].2
1954[2]	[13]3.7	.2	[13].3	[14]1.7	18.9	[14]1.7	[14].2
1939[3]	1.0	(NA)	(Z)	(NA)	5.6	(NA)	.2
1929[5]	1.7	(NA)	(Z)	.7	10.4	(NA)	.2
1919[6]	.8	-	(Z)	(NA)	4.2	(NA)	[15].2
1909[6]	.5	-	(Z)	(NA)	3.5	(NA)	(NA)
1902[7]	.8	(NA)	(Z)	(NA)	4.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Represents less than one-half of the unit of measure specified.

[1]In 1967, for the first time, data for single unit establishments without paid employees were excluded from the census. In 1963, there were 4 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for any sand and gravel mining operations in manufacturing establishments.

[3]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operations was $369 thousand; this value has been included in the value of shipments and value added in mining. The comparable value of marble and sandstone is not available.

[4]Represents number of mines and quarries.

[5]Excludes data for common clay and shale operations. There were 6 such mines in 1939 with products valued at $41 thousand.

[6]Excludes data for sand and gravel operations and stone quarries operated as parts of lime establishments. There were 22 such operations in 1929 with products valued at $1,816 thousand. See also footnote 5.

[7]Excludes data for sand and gravel, common clay, and shale operations. Includes data for lime plants producing lime valued at $324 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments includes the estimated value of minerals produced and used in the same establishment. For 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figure shown for cost of minerals received for preparation. For all other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments and, for 1963, for dimension stone in manufactures, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuel and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For similar operations in 1929, the quantity of purchased electric energy amounted to only 6 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	111	19	1.3	11.0	.9	1.9	5.9	17.0	9.7	24.5	2.2	1.7	16.9
10	Metal mining	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1021	Copper ores	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1211	Bituminous coal	2	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuels	101	17	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	16.9
142	Crushed and broken stone	17	6	.4	3.1	.3	.6	2.0	5.7	3.9	9.0	.7	.4	4.6
1423	Crushed and broken granite	3	3	.1	1.3	.1	.2	.8	1.9	2.1	3.9	.1	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.3
144	Sand and gravel	77	10	.7	4.8	.5	1.2	3.6	10.2	4.7	13.7	1.2	1.0	11.9
1442	Construction sand and gravel	73	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees. n.e.c. Not elsewhere classified.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc.	Value of shipments and receipts[1]	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	26	3	0.5	3.0	0.4	0.8	2.3	5.5	1.8	7.2	(NA)	0.6	8.4
142	Crushed and broken stone	4	-	(Z)	0.2	(Z)	0.1	0.2	0.7	0.3	1.0	(NA)	0.1	3.1
144	Sand and gravel	12	-	(Z)	0.2	(Z)	0.1	0.2	1.0	0.1	1.1	(NA)	0.1	2.0

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Massachusetts:													
	Establishments.....number...	111	108	10	-	10	-	58	-	57	1	3	37	3
	Employees.....1,000...	1.3	(D)	.1	-	.1	-	.9	-	(D)	(D)	(D)	.3	(D)
	Value added in mining.mil.dol..	17.0	(D)	1.0	-	1.0	-	13.5	-	(D)	(D)	(D)	1.6	(D)
10	Metal mining:													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
1021	Copper ores:													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number...	6	3	-	-	-	-	-	-	-	-	-	3	3
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number...	5	2	-	-	-	-	-	-	-	-	-	2	3
	Employees.....1,000...	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	-.1	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number...	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number...	101	101	10	-	10	-	58	-	57	1	3	30	-
	Employees.....1,000...	(D)	(D)	.1	-	.1	-	.9	-	(D)	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	1.0	-	1.0	-	13.5	-	(D)	(D)	(D)	(D)	-
141	Dimension stone:													
	Establishments.....number...	4	4	3	-	3	-	1	-	1	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number...	17	17	-	-	-	-	16	-	16	-	-	1	-
	Employees.....1,000...	.4	.4	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	5.7	5.7	-	-	-	-	(D)	-	(D)	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number...	77	77	6	-	6	-	39	-	38	1	3	29	-
	Employees.....1,000...	.7	.7	(Z)	-	(Z)	-	.5	-	(D)	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	10.2	10.2	.7	-	.7	-	7.1	-	(D)	(D)	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number...	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees.....1,000...	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number...	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000...	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	111	128	Cost of supplies, total.....million dollars..	9.7	8.7
With 0 to 19 employees.....do....	93	104	Supplies used, minerals received for preparation, and purchased machinery.....do....	6.2	(NA)
With 20 to 99 employees.....do....	18	24	Cost of resales.....do....	.2	(NA)
With 100 or more employees.....do....	1	-	Purchased fuels consumed.....do....	1.0	(NA)
All employees (average for year).....1,000..	1.3	1.7	Electric energy:		
Payroll (all employees), total for year.....million dollars..	11.0	10.1	Quantity purchased.....million kw.-hrs..	31.4	(NA)
			Cost.....million dollars..	.7	(NA)
			Generated less sold.....million kw.-hrs..	-	(NA)
			Contract work.....million dollars..	1.6	.5
Production, development, and exploration workers:			Value of shipments and receipts (including resales), total.....do....	24.5	22.4
Average for the year.....1,000..	.9	1.2	Value of resales.....do....	.9	(NA)
March.....do....	.7	(NA)			
May.....do....	.9	(NA)	Value added in mining.....do....	17.0	16.9
August.....do....	.9	(NA)			
November.....do....	.9	(NA)	Capital expenditures (except land and mineral rights), total.....do....	2.2	3.1
Man-hours.....millions..	1.9	2.6	Mineral development and exploration.....do....	.2	(Z)
Wages.....million dollars..	5.9	6.5	New structures and additions.....do....	.2	3.1
Supplemental labor cost not included in payroll.....do..	.7	(NA)	New machinery and equipment.....do....	1.7	
			Used plant and equipment.....do....	.1	
Legally required expenditures, including Social Security contributions.....do..	.5	(NA)	Mineral development and exploration expenditures, total.....do....	.4	(NA)
Payments for voluntary programs.....do..	.2	(NA)	Capitalized.....do....	.2	(Z)
			Expensed.....do....	.2	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Massachusetts, total	111	19	1.3	11.0	.9	1.9	5.9	17.0	9.7	24.5	2.2	1.7	16.9
	COUNTIES[2]													
	Essex county, total	10	2	.1	.6	.1	.2	.5	1.7	1.1	2.7	.1	.1	.9
14	Nonmetallic minerals, except fuels	10	2	.1	.6	.1	.2	.5	1.7	1.1	2.7	.1	.1	.9
	Middlesex county, total	27	5	.4	3.4	.2	.4	1.4	3.6	1.8	4.7	.6	.4	5.5
10	Metal mining	2	1	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	-
102	Copper ores	2	1	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	-
14	Nonmetallic minerals, except fuels	23	4	.2	1.8	.2	.4	1.4	3.6	1.8	4.7	.6	.4	5.5
144	Sand and gravel	18	3	.2	1.4	.1	.3	1.1	2.7	1.4	3.7	.5	(NA)	(NA)
	Norfolk county, total	16	5	.3	2.2	.2	.4	1.5	3.9	3.2	6.7	.4	.2	2.2
14	Nonmetallic minerals, except fuels	16	5	.3	2.2	.2	.4	1.5	3.9	3.2	6.7	.4	.2	2.2
142	Crushed and broken stone	3	3	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for their own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represent the number of reports received, while county establishment counts represent the number of reports that indicated operations in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Massachusetts, total	[1]111	2	-	2	6	101
0 to 4 employees	44	-	-	-	5	39
5 to 9 employees	23	-	-	1	1	21
10 to 19 employees	25	1	-	-	-	24
20 to 49 employees	15	-	-	-	-	15
50 to 99 employees	3	-	-	1	-	2
100 to 249 employees	1	1	-	-	-	-
Barnstable county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Berkshire county, total	7	-	-	-	-	7
0 to 19 employees	7	-	-	-	-	7
Bristol county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Essex county, total	10	-	-	-	-	10
0 to 19 employees	8	-	-	-	-	8
20 to 99 employees	2	-	-	-	-	2
Franklin county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Hampden county, total	8	-	-	-	-	8
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	2	-	-	-	-	2
Hampshire county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Middlesex county, total	27	2	-	1	1	23
0 to 19 employees	22	1	-	1	1	19
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	1	-	-	-	-
Norfolk county, total	16	-	-	-	-	16
0 to 19 employees	11	-	-	-	-	11
20 to 99 employees	5	-	-	-	-	5
Plymouth county, total	6	-	-	-	-	6
0 to 19 employees	6	-	-	-	-	6
Suffolk county, total	4	-	-	1	-	3
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	1	-	-
Worcester county, total	14	-	-	-	2	12
0 to 19 employees	13	-	-	-	2	11
20 to 99 employees	1	-	-	-	-	1
Offshore, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

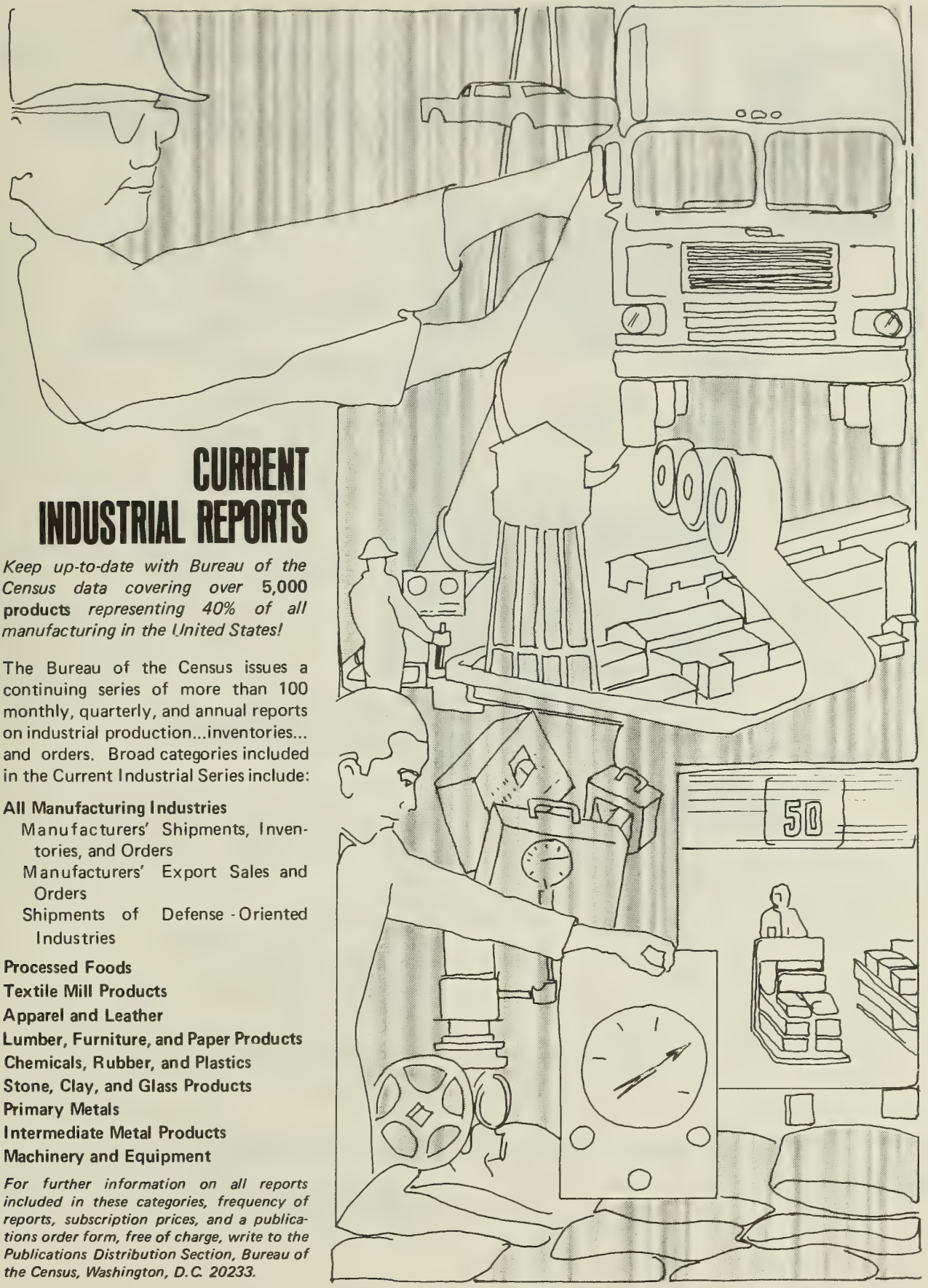
For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

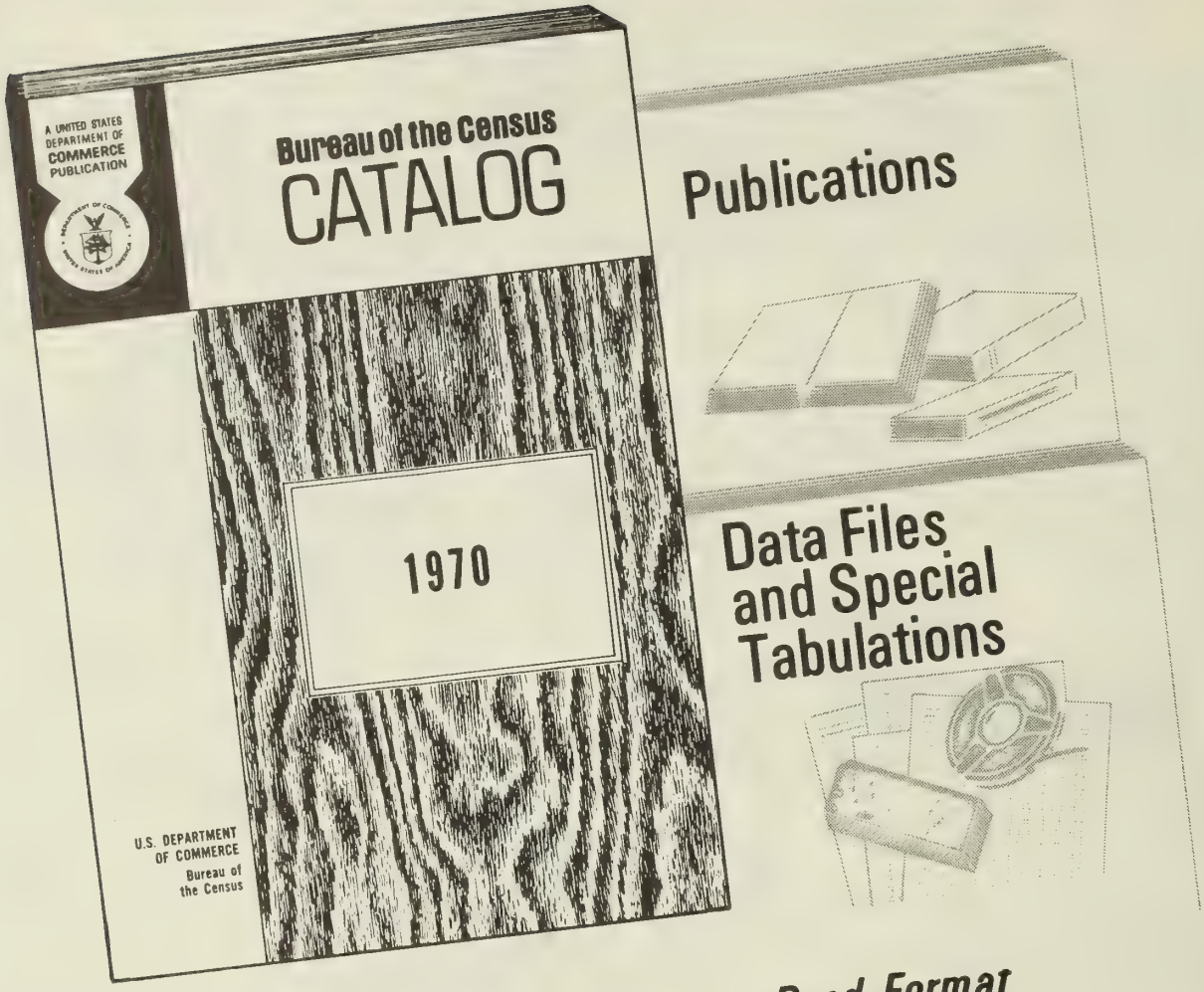
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



ORDER FROM: C3.163/3

Mail order form with payment to:
Superintendent of Documents
U.S. Government Printing Office
Washington, D. C. 20402
or any U.S. Department of Commerce Field Office

Make check payable to Superintendent of Documents

Subscription	Quantity	Price	Amount
1 Year		3.00	
2 Years		6.00	
3 Years		9.00	

Add $.75 For Foreign Mailing Per Year

Enclosed is $ _____

(check, money order, Supt. Docs. coupons) or charge Deposit Account No. _____

Name _____

Street Address _____

City, State, ZIP _____

Easy To Read Format

Major subjects covered

Agriculture — Construction — Housing — Distribution and Services — Foreign Trade — Geography — Governments — Manufacturing — Mineral Industries — Population — Transportation — General Statistical Compendia

Lists and describes

Reports and special compendia presenting statistics from censuses, current surveys, and other programs of the Census Bureau.

Data available from computer tape, punchcards, and special tabulations.

Selected publications from other government agencies and from the Congress.

Papers and articles prepared by the Census Bureau staff.

Issued quarterly, cumulative to annual, with monthly supplements.

Disclosure of individual data prohibited by Census law. Information in printed reports, data files, and special tabulations is presented as statistical summaries only.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 431-995/1382

1967 CENSUS OF Mineral Industries



MIC67(2)-21

AREA STATISTICS

MICHIGAN

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]459	85	12.2	88.0	10.1	20.5	71.3	289.9
1963	[1]691	78	12.2	75.2	10.1	19.9	59.5	223.1
1958	539	87	14.3	73.2	11.9	22.1	59.3	158.0
1954	567	94	16.4	76.3	13.7	28.2	61.1	149.1
Including operations in manufactures:								
1967	484	89	12.6	90.5	10.5	21.3	73.8	302.4
1963	742	83	12.4	76.7	10.4	20.5	61.0	232.7
1958	574	91	14.7	74.7	12.2	22.7	60.8	165.5
1954[2]	591	98	16.7	77.3	14.0	28.8	62.2	153.0
1939	[3]620	(NA)	17.0	23.9	15.2	29 0	19.7	64.9
1919[4]	128	(NA)	33.5	55.1	31.5	(NA)	50.8	79.8
1909[4]	133	(NA)	41.6	30.4	39.9	(NA)	28.1	53.0
1902[5]	[3]196	(NA)	32.9	21.6	[6]31.4	(NA)	19.8	39.1
Excluding oil and gas extraction industries:								
1967	313	70	11.2	80.9	9.3	19.0	66.4	255.9
1963	451	63	10.5	65.4	8.9	17.5	52.2	172.6
1958	380	71	12.9	65.9	10.8	19.7	53.9	141.7
1954[2]	329	77	14.6	67.8	12.2	25.0	54.2	122.1
1939	[3]187	(NA)	13.5	13.7	12.4	24.0	15.9	42.6
1929[7]	161	(NA)	22.3	32.7	20.9	(NA)	28.9	72.2

Kind of operation and year	Selected expenses				Value of shipments and receipts[8]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[9]234.4	([9])	12.2	([9])	483.7	52.8	(NA)
1963	63.6	30.7	59.7	15.5	316.4	76.1	6.5
1958	43.9	15.8	17.1	8.8	218.3	25.0	4.3
1954	41.8	[10]6.9	20.1	23.5	194.7	46.8	3.7
Including operations in manufactures:							
1967	[11]248.4	([11])	([11])	([11])	498.0	(NA)	(NA)
1963	[12]65.0	30.7	[12]59.7	[13]15.5	327.5	[13]76.1	[13]6.5
1958	[12]45.5	15.8	[12]17.1	[13]13.8	227.3	[13]25.0	[13]4.3
1954[2]	[12]42.6	[10]6.9	[12]20.1	[13]23.5	199.4	[13]46.8	[13]3.7
1939	12.2	(NA)	3.5	(NA)	80.6	(NA)	4.5
1919[4]	24.0	-	(Z)	(NA)	103.9	(NA)	[14]10.8
1909[4]	14.2	-	.5	(NA)	67.7	(NA)	(NA)
1902[5]	3.8	(NA)	.1	(NA)	48.0	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[11]152.2	([11])	([11])	([11])	401.8	(NA)	(NA)
1963	[12]75.6	([15])	[12]47.1	[13]12.8	245.0	[13]63.2	[13]5.3
1958	[12]38.9	15.4	[12]12.1	[13]6.9	193.4	[13]21.6	[13]3.5
1954[2]	[12]34.0	6.9	[12]12.4	[13]19.5	156.2	[13]38.7	[13]2.9
1939	10.6	(NA)	.2	(NA)	53.4	(NA)	3.4
1929[7]	22.9	(NA)	.1	3.3	95.3	(NA)	7.9

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnote for Table 1. Michigan--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 154 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[4]Excludes data for sand, gravel, common clay, and shale operations, and for limestone quarries operated as parts of cement and lime plants. In 1939, the value of products of such establishments was $3,528 thousand.

[5]Excludes data for sand, gravel, common clay, and shale operations, and for stone quarries operated as parts of cement plants producing cement valued at $2,134 thousand. Includes data for lime plants producing lime valued at $208 thousand.

[6]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]Excludes data for common clay and shale mining operations. In 1939, there were 12 such mines, with products valued at $201 thousand. For each of the census years 1919, 1909, and 1902, only one oil and gas extraction establishment was reported; hence, the figures shown for these years for "All operations" were also approximately comparable to the figures shown for later years for "Excluding oil and gas extraction industries."

[8]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[9]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[10]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For dimension stone in manufacturers in 1963 and 1958, the cost of contract work and purchased machinery installed minus capital expenditures was also included.

[13]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments and for 1963 and 1958, for dimension stone operations in manufactures.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hrs. equivalent of energy used.

[15]Figures for cost of minerals received for preparation are included with those for cost of supplies, purchases for resales, and purchased fuels and electric energy.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	459	85	12.2	88.0	10.1	20.5	71.3	289.9	246.6	483.7	52.8	12.2	223,1
10	Metal mining	33	28	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	99.7
1011	Iron ores	23	19	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1021	Copper ores	6	6	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	171	19	1.4	9.6	1.2	2.3	7.4	46.5	96.2	135.5	7.2	(NA)	60.1
1311	Crude petroleum and natural gas	95	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	47.9
	Crude petroleum	86	7	.6	4.2	.5	.9	3.0	26.1	8.7	31.5	3.2	(NA)	(NA)
	Natural gas	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1321	Natural gas liquids	6	-	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	70	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1381	Drilling oil and gas wells	30	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	8.1
1389	Oil and gas field services, n.e.c.	31	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	255	38	3.9	28.6	3.3	6.9	23.0	77.0	29.5	96.9	9.5	3.9	63.3
142	Crushed and broken stone	28	7	1.5	11.1	1.3	2.6	9.3	29.3	11.3	36.7	4.0	1.4	23.3
1422	Crushed and broken limestone	21	7	1.4	10.6	1.3	2.5	9.0	27.9	10.5	34.6	3.8	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	7	-	.1	.5	(Z)	.1	.3	1.5	.8	2.1	.2	(NA)	(NA)
144	Sand and gravel	199	25	1.9	13.9	1.5	3.2	10.6	34.4	14.7	44.2	4.9	1.9	28.0
1442	Construction sand and gravel	188	21	1.6	11.6	1.3	2.7	8.9	27.8	12.1	35.7	4.2	(NA)	(NA)
1443	Glass sand	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1444	Molding sand	8	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer minerals	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	17	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1492	Gypsum	3	2	.1	.9	.1	.2	.7	3.1	(D)	3.8	(D)	(D)	(D)
1498	Peat	13	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number [1] (1,000)	Payroll [1] (million dollars)	Number [1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	25	4	0.4	2.5	0.4	0.8	2.5	12.5	1.8	14.3	(NA)	0.3	9.7
142	Crushed and broken stone (limestone)	4	2	0.2	1.2	0.2	0.3	1.2	7.9	1.0	8.9	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Michigan:													
	Establishments.....number..	459	454	83	8	29	46	135	4	124	7	15	221	5
	Employees.....1,000..	12.2	12.2	3.0	2.2	(D)	(D)	6.9	(D)	(D)	.2	.5	1.8	(Z)
	Value added in mining..mil.dol..	289.9	290.2	76.9	39.0	(D)	(D)	179.0	(D)	(D)	5.6	15.6	18.7	-.3
10	Metal mining:													
	Establishments.....number..	33	33	13	8	5	-	7	2	5	-	4	9	-
	Employees.....1,000..	(D)	(D)	(D)	2.2	(D)	-	(D)	(D)	(D)	-	(D)	.6	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	39.0	(D)	-	(D)	(D)	(D)	-	(D)	1.9	-
1011	Iron ores:													
	Establishments.....number..	23	23	12	7	5	-	4	-	4	-	3	4	-
	Employees.....1,000..	(D)	(D)	1.9	(D)	(D)	-	1.9	-	1.9	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	37.0	(D)	(D)	-	84.3	-	84.3	-	(D)	(D)	-
1021	Copper ores:													
	Establishments.....number..	6	6	1	1	-	-	3	2	1	-	1	1	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	(D)	(D)	-
1081	Metal mining services:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	171	168	45	-	-	45	-	-	-	-	6	117	3
	Employees.....1,000..	1.4	(D)	(D)	-	-	(D)	-	-	-	-	(D)	.8	(D)
	Value added in mining..mil.dol..	46.5	(D)	(D)	-	-	(D)	-	-	-	-	(D)	11.9	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	95	93	45	-	-	45	-	-	-	-	-	47	3
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	6	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	70	70	-	-	-	-	-	-	-	-	-	70	-
	Employees.....1,000..	.7	(D)	-	-	-	-	-	-	-	-	-	.7	-
	Value added in mining..mil.dol..	9.4	(D)	-	-	-	-	-	-	-	-	-	9.4	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	255	253	25	-	24	1	128	2	119	7	5	95	2
	Employees.....1,000..	3.9	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)	.2	(D)	.5	(D)
	Value added in mining..mil.dol..	77.0	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)	5.6	(D)	4.8	(D)
141	Dimension stone:													
	Establishments.....number..	5	5	4	-	4	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	28	28	-	-	-	-	26	1	25	-	1	1	-
	Employees.....1,000..	1.5	1.5	-	-	-	-	(D)	(D)	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	29.4	29.4	-	-	-	-	(D)	(D)	(D)	-	(D)	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Michigan--Continued													
14	Nonmetallic minerals, except fuels--Continued													
144	Sand and gravel:													
	Establishments.....number..	199	197	12	-	12	-	89	-	82	7	4	92	2
	Employees.....1,000..	1.9	(D)	.1	-	.1	-	1.4	-	1.2	.2	(D)	(D)	(D)
	Value added in mining..mil.dol..	34.4	(D)	1.7	-	1.7	-	27.7	-	22.1	5.6	(D)	(D)	(D)
145	Clay and related minerals:													
	Establishments.....number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	2	2	1	-	1	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	17	17	7	-	6	1	10	-	10	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	(D)	.2	-	.2	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	(D)	6.4	-	6.4	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	459	691	Cost of supplies, total.....million dollars..	246.6	169.5
With 0 to 19 employees.....do....	374	613	Supplies used, minerals received for preparation, and purchased machinery.....do....	205.8	(NA)
With 20 to 99 employees.....do....	57	49	Cost of resales.....do....	3.5	(NA)
With 100 or more employees.....do....	28	29	Purchased fuels consumed.....do....	-	-
All employees (average for year).....1,000..	12.2	12.2	Electric energy:		
			Quantity purchased.....million kw.-hrs..	11.5	(NA)
Payroll (all employees), total for year.....million dollars..	88.0	75.2	Cost.....million dollars..	13.5	(NA)
			Generated less sold.....million kw.-hrs..	489.7	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	12.2	59.7
Average for the year.....1,000..	10.1	10.1	Value of shipments and receipts (including resales), total.....do....	483.7	316.4
March.....do....	9.9	(NA)	Value of resales.....do....	4.1	(NA)
May.....do....	10.7	(NA)			
August.....do....	11.1	(NA)	Value added in mining.....do....	289.9	223.1
November.....do....	8.8	(NA)			
Man-hours.....millions..	20.5	19.9	Capital expenditures (except land and mineral rights), total.....do....	52.8	76.1
Wages.....million dollars..	71.3	59.5	Mineral development and exploration.....do....	10.1	10.7
			New structures and additions.....do....	15.2	65.4
Supplemental labor cost not included in payroll.....do..	11.0	(NA)	New machinery and equipment.....do....	25.4	
			Used plant and equipment.....do....	2.1	
Legally required expenditures, including Social Security contributions.....do..	5.3	(NA)	Mineral development and exploration expenditures, total.....do....	-	-
Payments for voluntary programs.....do..	5.7	(NA)	Capitalized.....do....	-	-
			Expensed.....do....	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Michigan, total	459	85	12.2	88.0	10.1	20.5	71.3	289.9	246.6	483.7	52.8	12.2	223.1
	COUNTIES [2]													
	Berrien county, total	8	2	.1	.8	.1	.1	.4	1.6	1.0	2.2	.4	.1	.4
14	Nonmetallic minerals, except fuel	8	2	.1	.8	.1	.1	.4	1.6	1.0	2.2	.4	(D)	(D)
144	Sand and gravel	8	2	.1	.8	.1	.1	.4	1.6	1.0	2.2	.4	(Z)	.4
	Calhoun county, total	24	2	.1	1.0	.1	.3	.9	6.8	2.1	8.2	.7	.1	8.8
13	Oil and gas extraction	21	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	8.7
138	Oil and gas field services	14	2	.1	.9	.1	.3	.8	2.3	.8	3.0	.1	.1	1.0
	Chippewa county, total	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Dickinson county, total	6	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Genesee county, total	15	2	.1	.8	.1	.3	.7	2.9	.9	3.3	.5	(Z)	1.3
14	Nonmetallic minerals, except fuel	12	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hillsdale county, total	21	3	.3	1.7	.2	.4	1.3	9.7	4.8	13.8	.7	.2	12.6
13	Oil and gas extraction	20	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	12.6
138	Oil and gas field services	13	2	.2	.9	.2	.2	.7	2.1	.6	2.5	.2	(D)	(D)
	Houghton county, total	8	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	5	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	4	4	.4	2.0	.2	.4	.9	2.5	6.8	9.1	.2	(D)	(D)
	Iosco county, total	6	2	.1	1.0	.1	.3	.8	3.4	.9	4.2	.1	.1	3.3
14	Nonmetallic minerals, except fuel	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.3
149	Miscellaneous nonmetallic minerals	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Iron county, total	9	6	.8	6.6	.7	1.2	5.2	12.8	4.6	16.8	.7	1.0	20.4
10	Metal mining	8	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	20.4
101	Iron ores	7	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)		
	Isabella county, total	29	1	.1	.7	.1	.2	.6	2.0	.4	1.9	.5	.1	1.8
13	Oil and gas extraction	28	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jackson county	25	1	.1	.9	.1	.2	.6	5.0	1.1	5.9	.2	.1	6.1
	Kent county	26	-	.1	.6	.1	.2	.5	1.2	.3	1.3	.2	.2	2.3
	Keweenaw county, total	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Livingston county, total	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Mackinac county, total	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Michigan--Continued													
	COUNTIES[2]--Continued													
	Macomb county, total	18	3	.2	1.2	.2	.3	1.0	4.4	1.2	4.8	.9	.1	5.1
14	Nonmetallic minerals, except fuel	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.3
144	Sand and gravel	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.3
	Marquette county, total	15	13	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	14	13	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	14	13	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Oakland county, total	37	6	.4	3.2	.4	.8	2.7	9.7	3.6	11.7	1.6	.4	5.4
14	Nonmetallic minerals, except fuel	28	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.0
144	Sand and gravel	22	6	.4	2.9	.3	.7	2.4	9.0	3.2	10.9	1.4	(D)	(D)
	Ontonagon county, total	3	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Presque Isle county, total	5	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Saginaw county, total	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.1
14	Nonmetallic minerals, except fuel	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Clair county, total	30	3	.3	1.8	.2	.5	1.5	9.9	10.4	17.4	2.9	.3	11.2
13	Oil and gas extraction	22	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Schoolcraft county, total	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washtenaw county, total	12	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.5
14	Nonmetallic minerals, except fuel	9	3	.1	1.6	.1	.2	.7	2.4	1.1	3.2	.4	.1	.8
144	Sand and gravel	9	3	.1	1.6	.1	.2	.7	2.4	1.1	3.2	.4	.1	.8
	Wayne county, total	29	3	.4	3.5	.3	.7	2.7	11.0	3.2	13.4	.9	.4	10.4
14	Nonmetallic minerals, except fuel	19	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	9.7
144	Sand and gravel	15	1	.2	1.5	.1	.3	1.1	3.9	1.1	4.6	.4	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Michigan, total	459	33	-	-	171	255
0 to 4 employees	246	3	-	-	102	141
5 to 9 employees	78	2	-	-	32	44
10 to 19 employees	50	-	-	-	18	32
20 to 49 employees	41	4	-	-	15	22
50 to 99 employees	16	5	-	-	3	8
100 to 249 employees	17	10	-	-	1	6
250 to 499 employees	8	6	-	-	-	2
500 to 999 employees	2	2	-	-	-	-
1,000 to 2,499 employees	1	1	-	-	-	-
Alcona county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Alger county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Allegan county, total	22	-	-	-	15	7
0 to 19 employees	21	-	-	-	14	7
20 to 99 employees	1	-	-	-	1	-
Alpena county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Arenac county, total	16	-	-	-	13	3
0 to 19 employees	16	-	-	-	13	3
Baraga county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Barry county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Bay county, total	14	-	-	-	12	2
0 to 19 employees	14	-	-	-	12	2
Berrien county, total	8	-	-	-	-	8
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	2	-	-	-	-	2
Branch county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Calhoun county, total	24	-	-	-	21	3
0 to 19 employees	22	-	-	-	19	3
20 to 99 employees	2	-	-	-	2	-
Cass county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Charlevoix county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cheboygan county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Chippewa county, total	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Clare county, total	12	-	-	-	12	-
0 to 19 employees	11	-	-	-	11	-
20 to 99 employees	1	-	-	-	1	-
Clinton county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Crawford county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Delta county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Dickinson county, total	6	1	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
250 employees and over	1	1	-	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Michigan--Continued						
Eaton county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Emmet county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Genesee county, total	14	-	-	-	2	12
0 to 19 employees	12	-	-	-	2	10
20 to 99 employees	2	-	-	-	-	2
Gladwin county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Gogebic county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Grand Traverse county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Gratiot county, total	5	-	-	-	3	2
0 to 19 employees	4	-	-	-	2	2
20 to 99 employees	1	-	-	-	1	-
Hillsdale county, total	21	-	-	-	20	1
0 to 19 employees	18	-	-	-	18	-
20 to 99 employees	3	-	-	-	2	1
Houghton county, total	8	5	-	-	-	3
0 to 19 employees	4	1	-	-	-	3
20 to 99 employees	1	1	-	-	-	-
100 to 249 employees	3	3	-	-	-	-
Huron county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Ingham county, total	9	-	-	-	1	8
0 to 19 employees	9	-	-	-	1	8
Ionia county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Iosco county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
Iron county, total	9	8	-	-	-	1
0 to 19 employees	3	2	-	-	-	1
20 to 99 employees	2	2	-	-	-	-
100 to 249 employees	3	3	-	-	-	-
250 employees and over	1	1	-	-	-	-
Isabella county, total	29	-	-	-	28	1
0 to 19 employees	28	-	-	-	27	1
20 to 99 employees	1	-	-	-	1	-
Jackson county, total	25	-	-	-	21	4
0 to 19 employees	24	-	-	-	20	4
20 to 99 employees	1	-	-	-	1	-
Kalamazoo county, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
Kent county, total	26	-	-	-	16	10
0 to 19 employees	26	-	-	-	16	10
Keweenaw county, total	2	2	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Lake county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Lapeer county, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Michigan--Continued						
Lenawee county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Livingston county, total	6	-	-	-	2	4
0 to 19 employees	5	-	-	-	2	3
100 to 249 employees	1	-	-	-	-	1
Mackinac county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Macomb county, total	18	-	-	-	7	11
0 to 19 employees	15	-	-	-	7	8
20 to 99 employees	3	-	-	-	-	3
Manistee county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Marquette county, total	15	14	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
20 to 99 employees	4	4	-	-	-	-
100 to 249 employees	4	4	-	-	-	-
250 employees and over	5	5	-	-	-	-
Mason county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Mecosta county, total	11	-	-	-	8	3
0 to 19 employees	11	-	-	-	8	3
Menominee county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Midland county, total	7	-	-	-	6	1
0 to 19 employees	7	-	-	-	6	1
Missaukee county, total	6	-	-	-	6	-
0 to 19 employees	5	-	-	-	5	-
20 to 99 employees	1	-	-	-	1	-
Monroe county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
Montcalm county, total	9	-	-	-	6	3
0 to 19 employees	9	-	-	-	6	3
Muskegon county, total	5	-	-	-	2	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	2	-	-	-	1	1
Newaygo county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Oakland county, total	37	1	-	-	8	28
0 to 19 employees	31	1	-	-	8	22
20 to 99 employees	6	-	-	-	-	6
Oceana county, total	7	-	-	-	6	1
0 to 19 employees	7	-	-	-	6	1
Ogemaw county, total	14	-	-	-	12	2
0 to 19 employees	13	-	-	-	12	1
20 to 99 employees	1	-	-	-	-	1
Ontonagon county, total	3	3	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Osceola county, total	10	-	-	-	8	2
0 to 19 employees	10	-	-	-	8	2
Oscoda county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Michigan--Continued						
Otsego county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Ottawa county, total	11	-	-	-	6	5
0 to 19 employees	11	-	-	-	6	5
Presque Isle county, total	5	-	-	-	1	4
0 to 19 employees	3	-	-	-	1	2
100 to 249 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Roscommon county, total	8	-	-	-	5	3
0 to 19 employees	7	-	-	-	4	3
20 to 99 employees	1	-	-	-	1	-
Saginaw county, total	8	-	-	-	3	5
0 to 19 employees	7	-	-	-	3	4
20 to 99 employees	1	-	-	-	-	1
St. Clair county, total	30	-	-	-	22	8
0 to 19 employees	27	-	-	-	20	7
20 to 99 employees	3	-	-	-	2	1
St. Joseph county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Sanilac county, total	8	-	-	-	1	7
0 to 19 employees	8	-	-	-	1	7
Schoolcraft county, total	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Shiawassee county, total	5	-	-	-	1	4
0 to 19 employees	5	-	-	-	1	4
Tuscola county, total	5	-	-	-	3	2
0 to 19 employees	5	-	-	-	3	2
Van Buren county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
Washtenaw county, total	12	-	-	-	3	9
0 to 19 employees	9	-	-	-	3	6
20 to 99 employees	3	-	-	-	-	3
Wayne county, total	29	-	-	-	10	19
0 to 19 employees	26	-	-	-	10	16
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	2	-	-	-	-	2
Wexford county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1

Standard Notes: - Represents zero.

[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-892

1967 CENSUS OF Mineral Industries



MIC67(2)-22

AREA STATISTICS

MINNESOTA

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]226	65	12.9	98.7	10.1	19.8	70.7	415.0
1963	[1]334	67	13.2	91.0	9.9	18.9	59.5	367.7
1958	289	89	17.2	97.1	11.7	22.3	59.5	311.7
1954	292	84	17.0	75.5	13.8	26.4	56.5	290.2
Including operations in manufactures:								
1967	254	71	13.4	102.0	10.5	20.7	73.2	422.4
1963	365	73	13.7	93.3	10.3	19.7	61.2	373.0
1958	317	96	18.2	101.5	12.6	24.2	63.0	319.7
1954[2]	300	88	17.8	78.4	14.5	27.9	58.9	294.0
1939[3]	[4]178	(NA)	8.1	13.4	6.9	13.2	10.0	91.6
1929[5]	150	(NA)	13.0	21.5	11.7	(NA)	18.3	116.7
1919[6]	145	(NA)	18.8	32.9	17.5	(NA)	29.8	109.0
1909[6]	189	(NA)	18.2	13.8	16.9	(NA)	12.2	47.5
1902[7]	[8]176	(NA)	10.6	7.0	[9]9.9	(NA)	6.5	22.5

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11]217.9	([11])	33.6	([11])	584.4	82.1	(NA)
1963	97.2	46.8	5.2	10.4	502.1	25.2	10.9
1958	75.9	29.7	11.0	7.5	420.7	15.3	7.8
1954	56.7	4.6	30.8	25.6	343.9	64.0	2.6
Including operations in manufactures:							
1967	[12]253.0	([12])	([12])	([12])	593.3	(NA)	(NA)
1963	[13]98.2	47.1	[13]5.2	[14]10.5	508.7	[14]25.3	[14]10.9
1958	[13]78.9	29.7	[13]11.0	[14]7.6	431.6	[14]15.3	[14]7.9
1954[2]	[13]58.9	5.1	[13]30.8	[14]25.8	350.4	[14]64.2	[14]2.7
1939[3]	7.3	(NA)	.1	(NA)	98.9	(NA)	1.7
1929[5]	14.2	(NA)	1.5	3.0	132.4	(NA)	4.0
1919[6]	19.2	-	2.2	(NA)	130.4	(NA)	[15]5.7
1909[6]	9.0	-	2.2	(NA)	58.7	(NA)	(NA)
1902[7]	2.9	(NA)	.3	(NA)	25.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract services operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 36 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for any sand and gravel mining operations in manufacturing establishments. All figures except number of establishments exclude data for 2 common clay pits included in manufacturing establishments.

[3]Except, in part, for value of shipments and value added, excludes data for limestone and granite dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operations was $51 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for limestone is not available.

[4]Represents number of mines and quarries.

[5]Excludes data for clay mining operations included in manufacturing establishments. There were about 6 such mines in 1939 with products valued at about $114 thousand.

[6]Excludes data for sand and gravel mining operations included in manufacturing establishments and for stone quarries operated as parts of cement and lime plants. In 1929, there were 25 such operations with products valued at $2,042 thousand. See also footnote 8.

[7]Excludes data for sand, gravel, common clay, and shale mining operations in manufacturing establishments. Includes data for 2 cement plants and an unknown number of lime plants producing lime value at $76 thousand.

[8]Represents number of producing mines and quarries.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For sand and gravel and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishments. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For all other years, represents net production and excludes this duplication.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For sand and gravel and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale and purchased fuels and electric energy.

[14]Excludes data for sand and gravel and clay mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electricity for such operations amounted to only 3 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	226	65	12.9	98.7	10.1	19.8	70.7	415.0	251.5	584.4	82.1	13.2	367.7
10	Metal mining	58	38	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	11.4	350.8
1011	Iron ores	50	36	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	11.2	348.1
1081	Metal mining services	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.7
13	Oil and gas extraction	6	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1312	Crude petroleum	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	162	26	1.7	11.6	1.3	2.6	8.3	21.4	10.6	29.0	3.0	1.8	16.9
142	Crushed and broken stone	30	9	.5	3.5	.4	.8	2.6	6.6	2.9	8.7	.9	.4	4.2
1422	Crushed and broken limestone	22	7	.4	2.9	.3	.6	2.1	5.4	2.3	6.9	.8	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	115	14	1.1	7.1	.8	1.6	5.2	13.8	7.1	18.8	2.1	1.2	11.5
1442	Construction sand and gravel	114	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	28	6	0.5	3.3	0.4	0.9	2.5	7.4	1.5	8.9	[2]0.1	0.4	5.3
1411	Dimension stone	5	5	0.4	2.8	0.3	0.7	2.0	5.6	1.1	6.7	0.1	0.4	4.0
144	Sand and gravel	19	1	0.1	0.5	0.1	0.2	0.5	1.5	0.3	1.8	(NA)	(Z)	1.2

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the Dimension Stone Industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Minnesota:													
	Establishments.....number..	226	225	26	1	25	-	121	-	118	3	6	72	1
	Employees.....1,000..	12.9	(D)	2.1	(D)	(D)	-	8.5	-	(D)	(D)	(D)	.9	(D)
	Value added in mining..mil.dol..	415.0	(D)	30.4	(D)	(D)	-	311.2	-	(D)	(D)	(D)	3.4	(D)
10	Metal mining:													
	Establishments.....number..	58	57	7	1	6	-	31	-	30	1	6	13	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	7.1	-	(D)	(D)	(D)	.4	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	292.7	-	(D)	(D)	(D)	1.6	(D)
101	Iron ores:													
	Establishments.....number..	50	50	7	1	6	-	30	-	30	-	6	7	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-
102	Copper ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-		-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-		-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-		-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	1	-	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
108	Metal mining services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
131	Crude petroleum and natural gas:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
138	Oil and gas field services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	162	162	19	-	19	-	90	-	88	2	-	53	-
	Employees.....1,000..	1.7	1.7	(D)	-	(D)	-	1.3	-	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	21.4	21.4	(D)	-	(D)	-	18.6	-	(D)	(D)	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	9	9	9	-	9	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	.3	.3	.3	-	.3	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	30	30	-	-	-	-	30	-	30	-	-	-	-
	Employees.....1,000..	.5	.5	-	-	-	-	.5	-	.5	-	-	-	-
	Value added in mining..mil.dol..	6.6	6.6	-	-	-	-	6.6	-	6.6	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Minnesota--Continued													
144	Sand and gravel:													
	Establishments.....number..	115	115	8	-	8	-	57	-	55	2	-	50	-
	Employees.....1,000..	1.1	1.1	(D)	-	(D)	-	(D)	-	.8	(D)	-	.2	-
	Value added in mining..mil.dol..	13.8	13.8	(D)	-	(D)	-	(D)	-	11.3	(D)	-	1.7	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
148	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	5	5	2	-	2	-	1	-	1	-	-	2	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	226	334	Cost of supplies, total.....million dollars..	251.5	159.6
With 0 to 19 employees.....do....	161	267	Supplies used, minerals received for preparation, and purchased machinery.....do....	184.8	(NA)
With 20 to 99 employees.....do....	40	39	Cost of resales.....do....	1.0	(NA)
With 100 or more employees.....do....	25	28	Purchased fuels consumed.....do....	21.6	(NA)
All employees (average for year).....1,000..	12.9	13.2	Electric energy:		
Payroll (all employees), total for year.....million dollars..	98.7	91.0	Quantity purchased.....million kw.-hrs..	1022.7	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	10.5	(NA)
Average for the year.....1,000..	10.1	9.9	Generated less sold.....million kw.-hrs..	2013.3	(NA)
March.....do....	8.9	(NA)	Contract work.....million dollars..	33.6	5.2
May.....do....	10.4	(NA)	Value of shipments and receipts (including resales), total.....do....	584.4	502.1
August.....do....	11.1	(NA)	Value of resales.....do....	1.0	(NA)
November.....do....	9.9	(NA)	Value added in mining.....do....	415.0	367.7
Man-hours.....millions..	19.8	18.9	Capital expenditures (except land and mineral rights), total.....do....	82.1	25.2
Wages.....million dollars..	70.7	59.5	Mineral development and exploration.....do....	1.6	8.8
Supplemental labor cost not included in payroll.....do..	12.0	(NA)	New structures and additions.....do....	49.8	16.4
			New machinery and equipment.....do....	29.1	
			Used plant and equipment.....do....	1.6	
Legally required expenditures, including Social Security contributions.....do..	4.9	(NA)	Mineral development and exploration expenditures, total.....do....	22.2	(NA)
Payments for voluntary programs.....do..	7.1	(NA)	Capitalized.....do....	1.6	8.8
			Expensed.....do....	20.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Minnesota, total	226	65	12.9	98.7	10.1	19.8	70.7	415.0	251.5	584.4	82.1	13.2	367.7
	COUNTIES[2]													
	Crow Wing county, total	8	5	.3	2.3	.2	.5	1.7	7.5	1.2	8.3	.3	.3	5.3
10	Metal mining	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fillmore county	10	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.1
	Hennepin county, total	16	4	.5	4.1	.2	.3	1.4	3.2	1.5	4.2	.5	.5	3.0
13	Oil and gas extraction	5	1	.2	1.9	(Z)	(Z)	.1	.1	(Z)	-	.1	(D)	(D)
131	Crude petroleum and natural gas	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	(D)	(D)
14	Nonmetallic minerals, except fuels	11	3	.3	2.2	.2	.3	1.3	3.1	1.5	4.2	.4	(D)	(D)
144	Sand and gravel	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	(D)	(D)
	Itasca county, total	16	12	1.6	13.3	1.4	2.9	10.5	55.4	24.4	80.3	8.8	1.8	65.3
10	Metal mining	16	12	1.6	13.3	1.4	2.9	10.5	55.4	24.4	80.3	8.8	(D)	(D)
101	Iron ores	15	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	65.1
	Lake county, total	3	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Olmsted county, total	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Louis county, total	46	24	7.7	59.3	6.1	11.9	43.4	268.9	153.1	352.4	69.6	7.9	218.9
10	Metal mining	36	24	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	6.6	218.4
101	Iron ores	29	22	7.6	58.6	6.0	11.8	42.8	267.5	150.9	350.4	67.9	6.5	217.9

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Minnesota, total	226	58	-	-	6	162
0 to 4 employees	93	13	-	-	3	77
5 to 9 employees	33	4	-	-	-	29
10 to 19 employees	35	3	-	-	2	30
20 to 49 employees	31	9	-	-	-	22
50 to 99 employees	9	7	-	-	-	2
100 to 249 employees	17	14	-	-	1	2
250 to 499 employees	3	3	-	-	-	-
500 to 999 employees	2	2	-	-	-	-
1,000 to 2,499 employees	2	2	-	-	-	-
2,500 employees and over	1	1	-	-	-	-
Aitkin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Becker county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Beltrami county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Benton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Big Stone county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Blue Earth county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Brown county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Carlton county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Carver county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cass county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Chippewa county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Chisago county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Clay county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cook county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Crow Wing county, total	8	5	-	-	-	3
0 to 19 employees	3	2	-	-	-	1
20 to 99 employees	4	2	-	-	-	2
100 to 249 employees	1	1	-	-	-	-
Dakota county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Fillmore county, total	10	3	-	-	-	7
0 to 19 employees	8	2	-	-	-	6
20 to 99 employees	2	1	-	-	-	1
Freeborn county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Goodhue county, total	6	-	-	-	-	6
0 to 19 employees	6	-	-	-	-	6
Grant county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Minnesota--Continued						
Hennepin county, total	16	-	-	-	5	11
0 to 19 employees	12	-	-	-	4	8
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	2	-	-	-	1	1
Houston county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Hubbard county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Itasca county, total	15	15	-	-	-	-
0 to 19 employees	3	3	-	-	-	-
20 to 99 employees	5	5	-	-	-	-
100 to 249 employees	6	6	-	-	-	-
250 employees and over	1	1	-	-	-	-
Kanabec county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Kandiyohi county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Lac Qui Parle county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Lake county, total	3	2	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
250 employees and over	1	1	-	-	-	-
Le Sueur county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Lincoln county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lyon county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
McLeod county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Mahnomen county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Martin county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Mille Lacs county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Mower county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Murray county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Nicollet county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Nobles county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Olmsted county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Otter Tail county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Pennington county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Minnesota--Continued						
Pipestone county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Polk county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Ramsey county, total	4	-	-	-	2	2
0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	1	-	-	-	-	1
Redwood county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Renville county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Rice county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Rock county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
St Louis county, total	46	36	-	-	1	9
0 to 19 employees	22	12	-	-	1	9
20 to 99 employees	12	12	-	-	-	-
100 to 249 employees	6	6	-	-	-	-
250 employees and over	6	6	-	-	-	-
Scott county, total	7	-	-	-	-	7
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	2	-	-	-	-	2
Sherburne county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Sibley county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Stearns county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Steele county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Swift county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Todd county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Wabasha county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Wadena county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Washington county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Wilkin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Winona county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Wright county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Yellow Medicine county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-883

1967 CENSUS OF Mineral Industries



MIC67(2)-23

AREA STATISTICS

MISSISSIPPI

Issued March 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

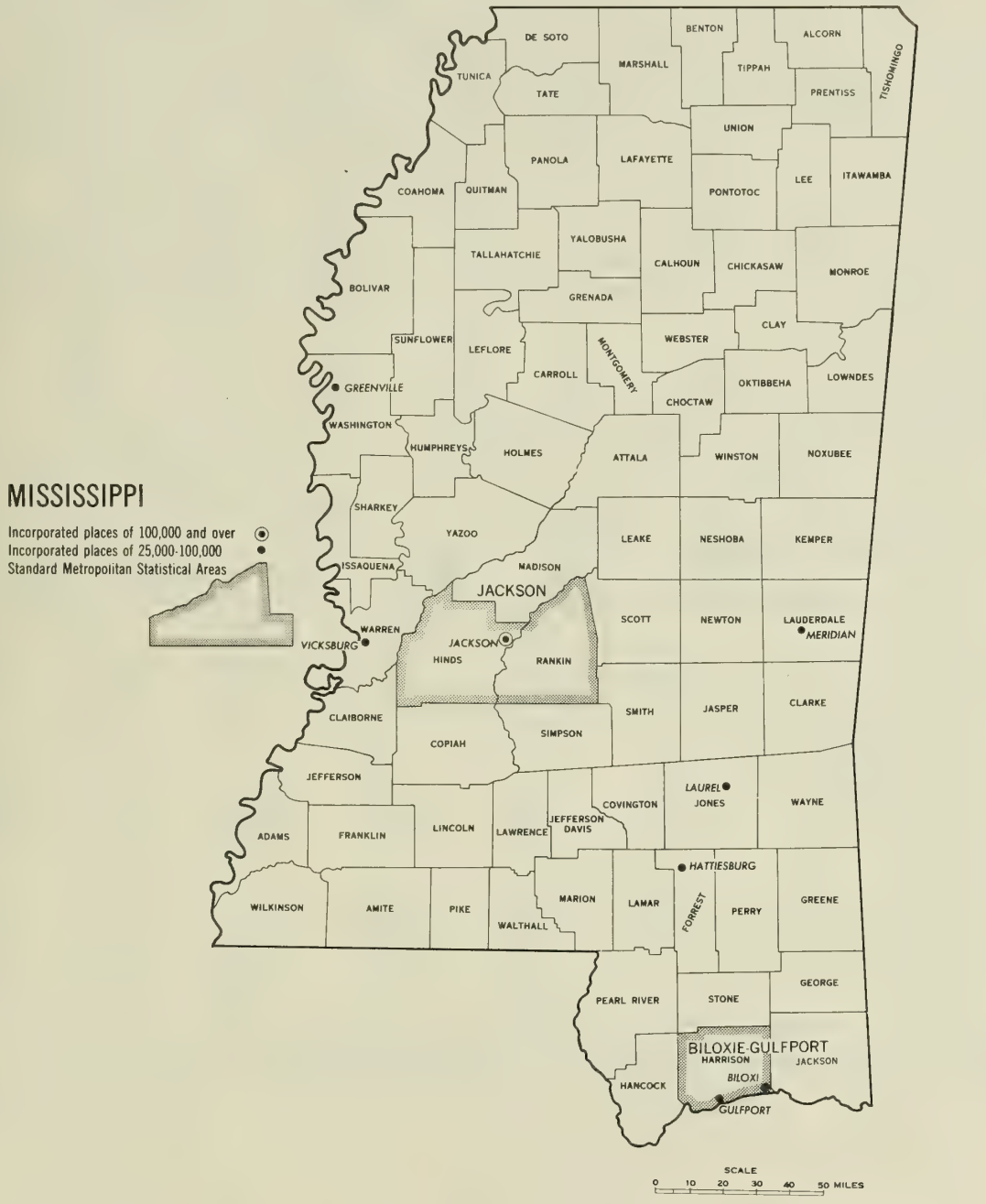
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]307	69	4.3	30.0	3.4	7.3	20.4	189.6
1963	[1]369	70	5.3	29.8	4.0	8.1	19.9	200.5
1958	255	64	5.3	26.6	4.1	8.8	19.0	135.3
1954	214	51	3.8	15.6	3.1	6.3	11.6	94.3
Including operations in manufactures:								
1967	319	70	4.4	30.4	3.5	7.5	20.8	190.7
1963	389	72	5.4	30.2	4.1	8.3	20.3	201.9
1958	269	64	5.3	26.7	4.2	8.9	19.1	136.2
1954	226	52	3.8	15.7	3.1	6.4	11.8	94.9
1939[2]	[3]73	(NA)	.7	.7	.6	1.2	.4	1.1
Excluding oil and gas extraction industries:								
1967	70	14	.9	4.6	.8	1.7	3.5	12.1
1963	87	16	1.0	3.5	.8	1.8	3.0	9.4
1958	71	14	.9	3.0	.8	1.7	2.4	9.6
1954	61	16	.8	2.3	.7	1.7	2.1	7.3
1939	[3]45	(NA)	.6	.4	.5	1.0	.3	1.1
1929[4]	13	(NA)	.4	.4	.4	(NA)	.3	.8

Kind of operation and year	Selected expenses				Value of shipments and receipts[6]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation[5] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[7]56.0	([7])	34.7	([7])	230.9	49.4	(NA)
1963	35.1	18.5	40.5	10.9	266.4	39.1	5.1
1958	30.2	15.4	28.4	11.1	188.0	32.5	4.5
1954	[8]18.6	([8])	19.1	11.3	120.2	23.0	4.0
Including operations in manufactures:							
1967	[9]91.8	([9])	([9])	([9])	233.1	(NA)	(NA)
1963	[10]35.6	18.5	[10]40.5	[11]10.9	268.4	[11]39.1	[11]5.1
1958	[10]30.5	15.4	[10]28.4	[11]11.1	189.2	[11]32.5	[11]4.5
1954	[8] [10]18.8	([8])	[10]19.1	[11]11.3	121.0	[11]23.0	[11]4.0
1939[2]	.5	(NA)	.5	(NA)	2.1	(NA)	.2
Excluding oil and gas extraction industries:							
1967	[9]7.8	([9])	([9])	([9])	18.1	(NA)	(NA)
1963	[10]3.5	(Z)	[10].5	[11]1.1	13.2	[11]1.2	[11].4
1958	[10]3.2	(Z)	[10].3	[11].7	12.6	[11]1.2	[11].3
1954	[10]2.5	-	[10].5	[11].9	10.3	[11].9	[11].2
1939	.3	(NA)	(Z)	(NA)	1.4	(NA)	.1
1929[4]	.3	(NA)	(Z)	.1	1.1	(NA)	.1

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Mississippi--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the Census. In 1963, there were 49 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for 2 oil and gas field services establishments.

[3]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[4]All figures except number of establishments include data for one limestone quarry in Louisiana. Excludes data for common clay and shale operations; in 1939, there were 6 such pits with products valued at $34 thousand.

[5]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants.

[6]For crushed and broken stone and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958 and 1954, represents gross value of shipments and contains duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For 1939 and 1929, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[7]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[8]The cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[9]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[10]For crushed and broken stone and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchased fuels and electric energy.

[11]Excludes data for crushed and broken stone and clay mining operations in manufacturing establishments.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	307	64	4.3	30.0	3.4	7.3	20.4	189.6	90.7	230.9	49.4	5.3	200.5
13	Oil and gas extraction	249	56	3.5	25.8	2.7	5.8	17.3	178.6	84.0	215.0	47.6	4.4	192.5
131	Crude petroleum and natural gas	107	22	1.5	12.5	.8	1.9	6.0	147.7	60.1	165.0	42.8	1.9	162.8
1312	Crude petroleum	99	21	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	156.5
1313	Natural gas	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	6.3
1321	Natural gas liquids	8	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	4.4
138	Oil and gas field services	134	34	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.4	25.3
1381	Drilling oil and gas wells	33	19	.9	6.3	.8	1.8	5.5	11.7	10.0	19.5	2.3	1.6	19.3
1382	Oil and gas exploration services	29	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	1.8
1389	Oil and gas field services, n.e.c.	72	12	.8	4.9	.7	1.5	3.8	13.7	4.8	16.8	1.6	.5	4.3
14	Nonmetallic minerals, except fuels	58	13	.8	4.2	.7	1.5	3.1	10.9	6.7	15.9	1.7	.9	8.0
144	Sand and gravel	44	8	.5	3.0	.4	1.0	2.2	6.7	4.4	9.6	1.5	.7	4.9
1442	Construction sand and gravel	43	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	11	5	.2	1.1	.2	.4	.9	4.0	2.2	5.9	.3	(NA)	(NA)
1452	Bentonite	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	12	1	0.1	0.4	0.1	0.2	0.4	1.1	1.1	2.2	(NA)	0.1	1.4

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Mississippi:													
	Establishments.....number..	307	299	88	-	8	80	27	-	22	5	6	179	8
	Employees.....1,000..	4.3	4.2	(D)	-	(D)	(D)	(D)	-	.5	(D)	(D)	2.2	.1
	Value added in mining..mil.dol..	189.6	189.7	(D)	-	(D)	(D)	(D)	-	7.6	(D)	(D)	30.7	-.1
13	Oil and gas extraction:													
	Establishments.....number..	249	242	80	-	-	80	-	-	-	-	6	156	7
	Employees.....1,000..	3.5	3.4	(D)	-	-	(D)	-	-	-	-	(D)	2.2	(D)
	Value added in mining..mil.dol..	178.6	(D)	(D)	-	-	(D)	-	-	-	-	2.1	29.2	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	107	102	80	-	-	80	-	-	-	-	-	22	5
	Employees.....1,000..	1.5	1.4	(D)	-	-	(D)	-	-	-	-	-	(D)	.1
	Value added in mining..mil.dol..	147.7	147.8	(D)	-	-	(D)	-	-	-	-	-	(D)	-.1
1321	Natural gas liquids:													
	Establishments.....number..	8	6	-	-	-	-	-	-	-	-	6	-	2
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	134	134	-	-	-	-	-	-	-	-	-	134	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	58	57	8	-	8	-	27	-	22	5	-	22	1
	Employees.....1,000..	.8	(D)	(D)	-	(D)	-	(D)	-	.5	(D)	-	.1	(D)
	Value added in mining..mil.dol..	10.9	(D)	(D)	-	(D)	-	(D)	-	7.6	(D)	-	.9	(D)
142	Crushed and broken stone:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	44	43	4	-	4	-	19	-	14	5	-	20	1
	Employees.....1,000..	.5	(D)	(Z)	-	(Z)	-	(D)	-	.3	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	6.7	(D)	.7	-	.7	-	(D)	-	3.6	(D)	-	(D)	(D)
145	Clay and related minerals:													
	Establishments.....number..	11	11	4	-	4	-	7	-	7	-	-	-	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	4.0	4.0	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	307	369	Cost of supplies, total.....million dollars..	90.7	266.4
With 0 to 19 employees.....do....	238	299	Supplies used, minerals received for preparation, and purchased machinery.....do....	50.8	(NA)
With 20 to 99 employees.....do....	65	60	Cost of resales.....do....	.2	(NA)
With 100 or more employees.....do....	4	10	Purchased fuels consumed.....do....	3.7	(NA)
All employees (average for year).....1,000..	4.3	5.3	Electric energy:		
Payroll (all employees), total for year.....million dollars..	30.0	29.8	Quantity purchased.....million kw.-hrs..	83.2	(NA)
			Cost.....million dollars..	1.3	(NA)
			Generated less sold.....million kw.-hrs..	14.0	(NA)
			Contract work.....million dollars..	34.7	40.5
Production, development, and exploration workers:					
Average for the year.....1,000..	3.4	4.0	Value of shipments and receipts (including resales), total.....do....	230.9	266.4
March.....do....	3.2	(NA)	Value of resales.....do....	.4	(NA)
May.....do....	3.4	(NA)			
August.....do....	3.5	(NA)			
November.....do....	3.3	(NA)	Value added in mining.....do....	189.6	200.5
Man-hours.....millions..	7.3	8.1	Capital expenditures (except land and mineral rights), total.....do....	49.4	39.1
Wages.....million dollars..	20.4	19.9	Mineral development and exploration.....do....	24.3	20.3
			New structures and additions.....do....	5.1	
Supplemental labor cost not included in payroll.....do..	2.8	(NA)	New machinery and equipment.....do....	17.7	18.8
			Used plant and equipment.....do....	2.3	
Legally required expenditures, including Social Security contributions.....do..	1.6	(NA)	Mineral development and exploration expenditures, total.....do....	35.8	(NA)
Payments for voluntary programs.....do..	1.3	(NA)	Capitalized.....do....	24.3	20.3
			Expensed.....do....	11.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Mississippi, total	307	69	4.3	30.0	3.4	7.3	20.4	189.6	90.7	230.9	49.4	5.3	200.5
	COUNTIES[2]													
	Adams county, total	72	17	.9	5.8	.7	1.6	4.4	21.2	10.6	27.2	4.7	.7	21.2
13	Oil and gas extraction	71	16	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	32	4	.2	1.5	.1	.4	.9	14.3	5.7	17.0	3.0	.2	16.4
138	Oil and gas field services	37	12	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Forrest county, total	23	5	.2	1.6	.2	.4	1.0	6.2	1.9	7.5	.6	.3	7.7
13	Oil and gas extraction	21	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Franklin county, total	26	1	.1	.7	.1	.2	.6	7.1	3.8	9.3	1.6	.1	3.4
13	Oil and gas extraction	26	1	.1	.7	.1	.2	.6	7.1	3.8	9.3	1.6	.1	3.4
	Hinds county, total	45	6	.5	4.4	.2	.4	1.2	4.2	1.8	4.0	1.9	.8	7.4
13	Oil and gas extraction	45	6	.5	4.4	.2	.4	1.2	4.2	1.8	4.0	1.9	(D)	(D)
131	Crude petroleum and natural gas	28	6	.4	4.0	.1	.2	.9	3.7	1.5	3.4	1.7	.5	5.8
	Jasper county, total	41	2	.2	1.2	.1	.2	.8	23.7	8.0	25.8	5.9	.1	12.6
13	Oil and gas extraction	40	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jones county, total	53	5	.4	2.9	.3	.7	2.1	15.6	3.8	18.2	1.2	.5	17.8
13	Oil and gas extraction	53	5	.4	2.9	.3	.7	2.1	15.6	3.8	18.2	1.2	.5	17.8
131	Crude petroleum and natural gas	24	3	.2	1.3	.1	.2	.8	11.2	2.7	13.1	.7	.1	13.1
138	Oil and gas field services	28	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lincoln county, total	26	2	.2	1.3	.1	.2	.6	7.0	4.4	10.6	.9	.3	6.4
13	Oil and gas extraction	26	2	.2	1.3	.1	.2	.6	7.0	4.4	10.6	.9	.3	6.4
	Marion county, total	26	3	.2	1.1	.1	.3	.7	9.2	2.3	10.5	1.0	.1	7.3
13	Oil and gas extraction	26	3	.2	1.1	.1	.3	.7	9.2	2.3	10.5	1.0	.1	7.3
138	Oil and gas field services	12	3	.1	.7	.1	.3	.7	1.3	.5	1.6	.2	.1	.9
	Pike county, total	26	5	.2	1.4	.2	.4	1.2	10.1	4.9	14.1	.9	.2	36.5
13	Oil and gas extraction	24	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Smith county, total	26	2	.1	1.1	.1	.2	.8	12.4	5.9	10.8	7.5	.1	10.6
13	Oil and gas extraction	25	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wayne county, total	36	3	.2	1.2	.2	.3	1.0	7.2	3.7	9.5	1.4	.2	9.4
13	Oil and gas extraction	36	3	.2	1.2	.2	.3	1.0	7.2	3.7	9.5	1.4	.2	9.4
138	Oil and gas field services	15	3	.1	.8	.1	.3	.7	1.8	1.2	2.6	.4	.1	1.6
	Yazoo county, total	29	2	.2	1.0	.2	.3	.9	8.3	3.1	8.9	2.4	.2	8.5
13	Oil and gas extraction	26	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Mississippi, total	307	-	-	-	249	58
0 to 4 employees	142	-	-	-	120	22
5 to 9 employees	47	-	-	-	36	11
10 to 19 employees	49	-	-	-	37	12
20 to 49 employees	52	-	-	-	41	11
50 to 99 employees	13	-	-	-	11	2
100 to 249 employees	4	-	-	-	4	-
Adams county, total	72	-	-	-	71	1
0 to 19 employees	55	-	-	-	55	-
20 to 99 employees	17	-	-	-	16	1
Alcorn county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Amite county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Attala county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Bolivar county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Calhoun county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Carroll county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Chickasaw county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Choctaw county, total	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	1	-
Clarke county, total	21	-	-	-	21	-
0 to 19 employees	21	-	-	-	21	-
Clay county, total	5	-	-	-	3	2
0 to 19 employees	5	-	-	-	3	2
Copiah county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Covington county, total	5	-	-	-	4	1
0 to 19 employees	5	-	-	-	4	1
De Soto county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Forrest county, total	23	-	-	-	21	2
0 to 19 employees	18	-	-	-	17	1
20 to 99 employees	5	-	-	-	4	1
Franklin county, total	26	-	-	-	26	-
0 to 19 employees	25	-	-	-	25	-
20 to 99 employees	1	-	-	-	1	-
Greene county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Grenada county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hancock county, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1
Harrison county, total	5	-	-	-	4	1
0 to 19 employees	5	-	-	-	4	1
Hinds county, total	45	-	-	-	45	-
0 to 19 employees	39	-	-	-	39	-
20 to 99 employees	4	-	-	-	4	-
100 to 249 employees	2	-	-	-	2	-
Holmes county, total	6	-	-	-	4	2
0 to 19 employees	5	-	-	-	4	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Mississippi--Continued						
Itawamba county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
Jackson county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Jasper county, total	41	-	-	-	40	1
0 to 19 employees	39	-	-	-	38	1
20 to 99 employees	2	-	-	-	2	-
Jefferson county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Jefferson Davis county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Jones county, total	53	-	-	-	53	-
0 to 19 employees	48	-	-	-	48	-
20 to 99 employees	5	-	-	-	5	-
Lamar county, total	18	-	-	-	18	-
0 to 19 employees	18	-	-	-	18	-
Lauderdale county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lawrence county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Leake county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Lee county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Lincoln county, total	26	-	-	-	26	-
0 to 19 employees	24	-	-	-	24	-
20 to 99 employees	2	-	-	-	2	-
Lowndes county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Madison county, total	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-
Marion county, total	26	-	-	-	26	-
0 to 19 employees	23	-	-	-	23	-
20 to 99 employees	3	-	-	-	3	-
Marshall county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Monroe county, total	12	-	-	-	3	9
0 to 19 employees	11	-	-	-	3	8
20 to 99 employees	1	-	-	-	-	1
Neshoba county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Noxubee county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Oktibbeha county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Panola county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Pearl River county, total	10	-	-	-	8	2
0 to 19 employees	9	-	-	-	7	2
20 to 99 employees	1	-	-	-	1	-
Perry county, total	6	-	-	-	5	1
0 to 19 employees	6	-	-	-	5	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Mississippi--Continued						
Pike county, total	26	-	-	-	24	2
0 to 19 employees	21	-	-	-	19	2
20 to 99 employees	5	-	-	-	5	-
Pontotoc county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Rankin county, total	19	-	-	-	19	-
0 to 19 employees	18	-	-	-	18	-
20 to 99 employees	1	-	-	-	1	-
Scott county, total	6	-	-	-	6	-
0 to 19 employees	6	-	-	-	6	-
Sharkey county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Simpson county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Smith county, total	26	-	-	-	25	1
0 to 19 employees	24	-	-	-	23	1
20 to 99 employees	2	-	-	-	2	-
Stone county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Tippah county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Tishomingo county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Walthall county, total	13	-	-	-	13	-
0 to 19 employees	13	-	-	-	13	-
Warren county, total	4	-	-	-	2	2
0 to 19 employees	4	-	-	-	2	2
Washington county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wayne county, total	36	-	-	-	36	-
0 to 19 employees	33	-	-	-	33	-
20 to 99 employees	3	-	-	-	3	-
Wilkinson county, total	23	-	-	-	23	-
0 to 19 employees	23	-	-	-	23	-
Winston county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Yalobusha county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Yazoo county, total	29	-	-	-	26	3
0 to 19 employees	27	-	-	-	25	2
20 to 99 employees	2	-	-	-	1	1
Offshore, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.

[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment; purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-884

1967 CENSUS OF Mineral Industries



MIC67(2)-24

AREA STATISTICS

MISSOURI

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A-1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

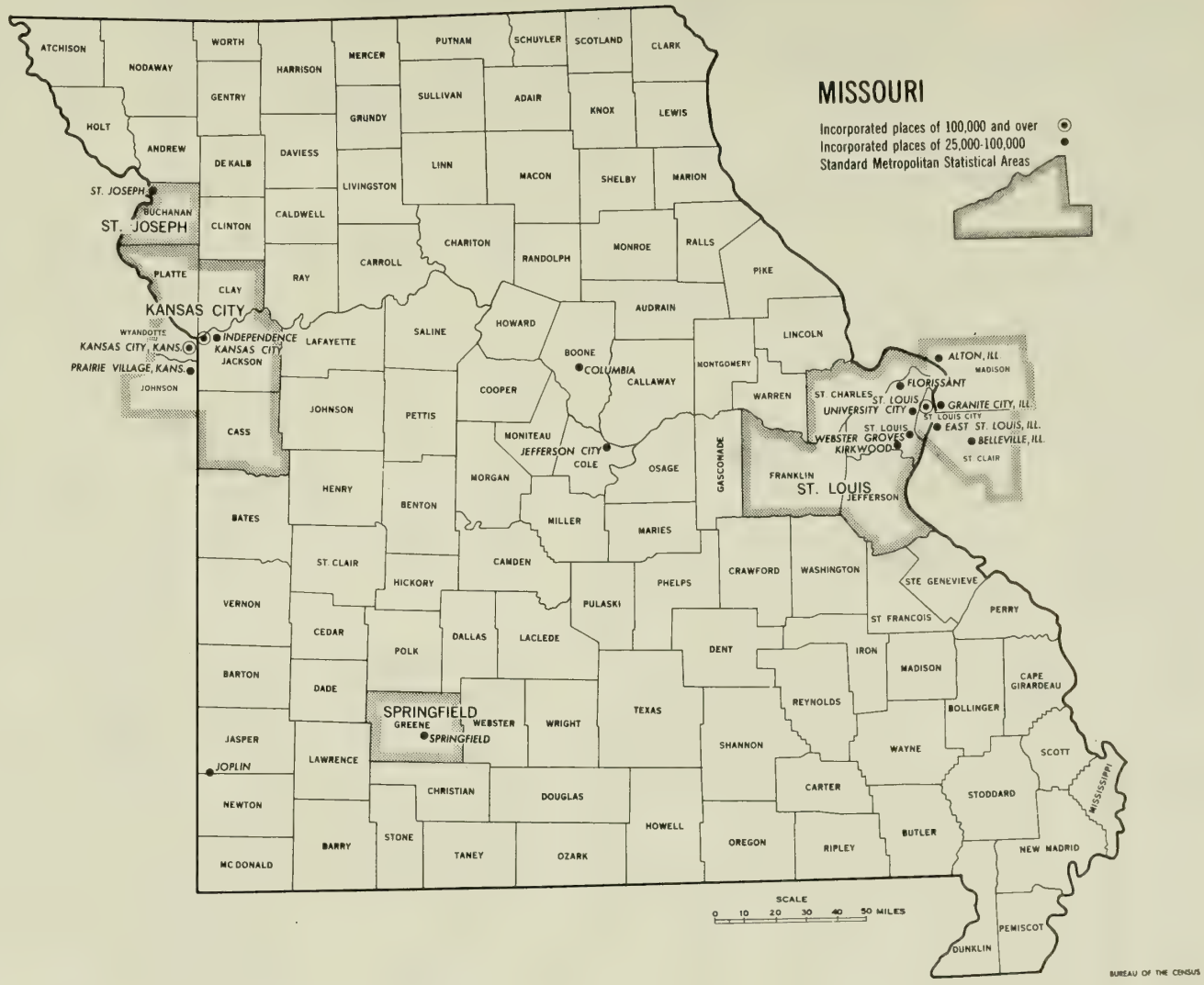
WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]381	76	8.9	60.0	6.0	12.3	38.3	103.6
1963	[1]425	66	7.7	38.2	5.8	11.3	27.1	66.3
1958	435	69	8.5	37.9	6.3	12.1	26.2	66.4
1954	456	74	8.0	31.1	6.7	13.5	24.4	[2]56.6
Including operations in manufactures:								
1967	405	82	9.7	64.7	6.8	13.9	42.3	117.3
1963	496	75	8.8	42.8	6.8	13.2	31.2	80.8
1958	469	80	9.3	41.7	7.1	13.8	29.6	78.3
1954[3]	485	83	8.9	34.5	7.5	15.5	27.6	[2]68.6
1939[4]	[5]491	(NA)	10.9	12.7	9.3	16.5	9.0	21.0
1929[6]	416	(NA)	14.5	18.7	13.4	(NA)	16.3	38.0
1919[7]	468	(NA)	15.9	18.6	14.9	(NA)	16.8	26.1
1909[7]	1,068	(NA)	24.5	15.7	23.5	(NA)	14.4	22.9
1902[8]	[5]1,060	(NA)	16.9	10.0	[9]15.4	(NA)	8.8	17.2

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11]58.9	([11])	23.2	([11])	144.2	41.6	(NA)
1963	27.5	.6	9.6	14.1	95.6	22.5	1.3
1958	21.2	.8	3.3	8.8	87.1	13.4	1.3
1954	16.5	2.1	2.7	6.1	[2]78.2	5.8	1.3
Including operations in manufactures:							
1967	(D)	(D)	(D)	(D)	161.4	(D)	(NA)
1963	[12]32.8	([12])	[12]9.6	[13]14.3	114.8	[13]22.7	[13]1.3
1958	[12]26.3	([12])	[12]3.3	[13]8.9	103.3	[13]13.5	[13]1.3
1954[3]	[12]18.7	2.5	[12]2.9	[13]6.2	[2]92.9	[13]5.9	[13]1.3
1939[4]	6.1	(NA)	.3	(NA)	27.4	(NA)	.8
1929[6]	9.1	(NA)	.2	1.7	47.3	(NA)	2.1
1919[7]	6.8	(Z)	.4	(NA)	33.4	(NA)	[14]3.8
1909[7]	7.0	1.5	.3	(NA)	31.7	(NA)	(NA)
1902[8]	2.9	(NA)	.2	(NA)	20.3	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 57 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Includes data for one tropoli mine in Oklahoma. Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing marble at such operations was $108 thousand; this value has been included in the value of shipments and value added in mining. The comparable values for limestone and granite are not available.

[5]Represents number of mines and quarries and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for oil and gas extraction and for common clay and shale operations. There were 17 such clay pits in 1939, with products valued at $123 thousand, and operations in the crude petroleum and natural gas industries, with products valued at $59 thousand.

[7]Excludes data for sand, gravel, common clay, and shale operations and for stone quarries operated as parts of cement and lime plants. For 1929, there were 32 such sand and gravel establishments, with products valued at $3,517 thousand; 3 such glass and moulding sand establishments; and 12 such stone operations with products valued at $2,055 thousand.

[8]Excludes data for sand, gravel, common clay, and shale operations. Includes data for one cement plant and for lime plants producing lime valued at $516 thousand.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, and clay mining operations in establishments, and for dimension stone mining operations in manufacture in 1958, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For 1963 and 1958, the figure for the cost of minerals received for preparation is combined with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 10 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	381	76	8.9	60.0	6.0	12.3	38.3	103.6	82.1	144.2	41.6	7.7	66.3
10	Metal mining	28	10	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.5	(NA)
1011	Iron ores	3	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	10	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	13.0
1032	Lead ores	9	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	14	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	22	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	22	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	21	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.1	(NA)
13	Oil and gas extraction	37	4	.9	8.4	.1	.2	.5	1.4	.7	1.6	.5	.2	.5
1311	Crude petroleum and natural gas	22	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Crude petroleum	20	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Natural gas	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	14	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1381	Drilling oil and gas wells	10	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	294	56	3.5	20.9	3.1	6.3	17.1	49.3	27.5	68.5	8.3	3.9	46.1
142	Crushed and broken stone	162	40	2.2	13.8	1.9	4.0	11.3	27.5	18.8	40.3	6.1	2.5	27.1
1422	Crushed and broken limestone	138	36	2.0	12.3	1.7	3.5	10.0	23.7	17.4	35.5	5.6	2.4	26.5
1423	Crushed and broken granite	9	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	15	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	69	8	.6	3.5	.5	1.0	2.9	8.3	3.7	10.7	1.3	.7	9.8
1442	Construction sand and gravel	62	6	.5	2.8	.4	.9	2.3	5.5	2.7	7.2	1.0	(NA)	(NA)
145	Clay and related minerals	29	2	.1	.8	.1	.3	.7	5.9	1.9	7.5	.4	(NA)	(NA)
1453	Fire clay	19	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer minerals	11	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1472	Barite	10	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1481	Nonmetallic minerals services	15	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number [1] (1,000)	Payroll [1] (million dollars)	Number [1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	24	6	0.8	4.7	0.8	1.6	4.0	13.7	(D)	17.2	(D)	1.0	14.6
142	Crushed and broken stone (limestone)	10	3	0.3	1.8	0.3	0.6	1.8	9.1	1.3	10.4	(NA)	(NA)	(NA)
144	Sand and gravel	5	1	(Z)	0.2	(Z)	0.1	0.2	0.4	0.2	0.5	(NA)	(Z)	0.6

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Missouri:													
	Establishments.....number..	381	371	62	13	44	5	204	21	168	15	1	104	10
	Employees.....1,000..	8.9	8.8	.3	(Z)	.2	(Z)	6.2	3.0	3.0	.2	(D)	(D)	.1
	Value added in mining..mil.dol..	103.6	106.7	8.9	.2	8.2	.6	87.6	39.6	45.0	3.0	(D)	(D)	-3.0
10	Metal mining:													
	Establishments.....number..	28	24	5	2	3	-	5	5	-	-	-	14	4
	Employees.....1,000..	(D)	3.0	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	43.8	(D)	(D)	(D)	-	(D)	(D)	-	-	-	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	3	3	2	-	2	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
103	Lead and zinc ores:													
	Establishments.....number..	10	6	2	2	-	-	4	4	-	-	-	-	4
	Employees.....1,000..	(D)	1.7	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	16.1	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
1081	Metal mining services:													
	Establishments.....number..	14	14	-	-	-	-	-	-	-	-	-	14	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	22	22	13	11	2	-	5	-	5	-	-	4	-
	Employees.....1,000..	(D)	(D)	(Z)	(D)	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	.3	(D)	(D)	-	(D)	-	(D)	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	22	22	13	11	2	-	5	-	5	-	-	4	-
	Employees.....1,000..	(D)	(D)	(Z)	(D)	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	.3	(D)	(D)	-	(D)	-	(D)	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	37	34	3	-	-	3	-	-	-	-	-	31	3
	Employees.....1,000..	.9	(D)	(D)	-	-	(D)	-	-	-	-	-	.9	(D)
	Value added in mining..mil.dol..	1.4	(D)	(D)	-	-	(D)	-	-	-	-	-	1.0	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number...	22	20	3	-	-	3	-	-	-	-	-	17	2
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	14	14	-	-	-	-	-	-	-	-	-	14	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	294	291	41	-	39	2	194	16	163	15	1	55	3
	Employees.....1,000..	3.5	(D)	.2	-	(D)	(D)	3.2	(D)	(D)	.2	(D)	.2	(D)
	Value added in mining..mil.dol..	49.3	(D)	7.1	-	(D)	(D)	39.8	(D)	(D)	3.0	(D)	2.6	(D)
141	Dimension stone:													
	Establishments.....number..	6	6	4	-	4	-	1	1	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	.2	-	.2	-	(D)	(D)	-	-	-	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Missouri--Continued													
14	Nonmetallic minerals, except fuels--Continued													
142	Crushed and broken stone:													
	Establishments.....number..	162	159	5	-	5	-	153	15	137	1	-	1	3
	Employees.....1,000..	2.2	(D)	.1	-	.1	-	2.1	(D)	1.9	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	27.5	(D)	1.0	-	1.0	-	26.7	(D)	22.9	(D)	-	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	69	69	3	-	1	2	28	-	14	14	1	37	-
	Employees.....1,000..	.6	.6	(D)	-	(D)	(D)	.4	-	(D)	(D)	(D)	.1	-
	Value added in mining..mil.dol..	8.3	8.3	(D)	-	(D)	(D)	6.1	-	(D)	(D)	(D)	1.9	-
145	Clay and related minerals:													
	Establishments.....number..	29	29	26	-	26	-	3	-	3	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	5.9	5.9	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	11	11	3	-	3	-	7	-	7	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	15	15	-	-	-	-	-	-	-	-	-	15	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	381	425	Cost of supplies, total.....million dollars..	82.1	51.8
With 0 to 19 employees.....do....	305	359	Supplies used, minerals received for preparation, and purchased machinery.....do....	48.9	(NA)
With 20 to 99 employees.....do....	65	58	Cost of resales.....do....	.5	(NA)
With 100 or more employees.....do....	11	8	Purchased fuels consumed.....do....	4.2	(NA)
All employees (average for year).....1,000..	8.9	7.7	Electric energy:		
Payroll (all employees), total for year.....million dollars..	60.0	38.2	Quantity purchased.....million kw.-hrs..	497.1	(NA)
			Cost.....million dollars..	5.3	(NA)
			Generated less sold.....million kw.-hrs..	7.2	(NA)
			Contract work.....million dollars..	23.2	9.6
Production, development, and exploration workers:					
Average for the year.....1,000..	6.0	5.8	Value of shipments and receipts (including resales), total.....do....	144.2	95.6
March.....do....	5.9	(NA)	Value of resales.....do....	.7	(NA)
May.....do....	6.0	(NA)			
August.....do....	6.3	(NA)			
November.....do....	5.8	(NA)	Value added in mining.....do....	103.6	66.3
Man-hours.....millions..	12.3	11.3	Capital expenditures (except land and mineral rights), total.....do....	41.6	22.5
Wages.....million dollars..	38.3	27.1	Mineral development and exploration.....do....	6.3	8.6
			New structures and additions.....do....	15.0	13.9
Supplemental labor cost not included in payroll.....do..	3.6	(NA)	New machinery and equipment.....do....	17.5	
			Used plant and equipment.....do....	2.7	
Legally required expenditures, including Social Security contributions.....do..	2.3	(NA)	Mineral development and exploration expenditures, total.....do....	9.3	(NA)
Payments for voluntary programs.....do..	1.4	(NA)	Capitalized.....do....	6.3	8.6
			Expensed.....do....	3.0	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Missouri, total	381	76	8.9	60.0	6.0	12.3	38.3	103.6	82.1	144.2	41.6	7.7	66.3
	COUNTIES[2]													
	Boone county	5	2	.1	1.2	.1	.3	1.1	3.8	1.3	4.9	.2	.1	2.4
	Franklin county, total	14	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8
10	Metal mining	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Henry county, total	7	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Iron county, total	7	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	7	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
108	Metal mining services	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jackson county, total	26	7	1.1	9.4	.2	.4	1.4	3.4	1.3	4.3	.4	.6	5.0
13	Oil and gas extraction	6	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	6	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	19	5	.2	1.7	.2	.4	1.4	3.4	1.3	4.3	.3	(D)	(D)
142	Crushed and broken stone	10	5	.2	1.5	.2	.4	1.3	3.1	1.3	4.1	.3	(D)	(D)
	Jefferson county, total	13	3	.1	.9	.1	.3	.8	2.0	1.4	3.0	.4	.1	1.1
14	Nonmetallic minerals, except fuels	13	3	.1	.9	.1	.3	.8	2.0	1.4	3.0	.4	.1	1.1
	Macon county, total	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Reynolds county, total	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Francois county, total	14	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	5	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	St. Louis county, total	31	11	.5	4.2	.4	.8	2.8	7.3	3.7	9.8	1.2	.5	7.3
13	Oil and gas extraction	12	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	17	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	7.1
142	Crushed and broken stone	8	6	.3	2.3	.2	.5	1.8	4.2	2.4	5.9	.6	.3	3.5
	St. Louis City, total	15	2	.9	4.1	(Z)	.1	.2	.6	.2	.7	.1	.1	.8
12	Bituminous coal and lignite mining	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Missouri--Continued													
	COUNTIES[2]--Continued													
	Washington county, total.....	9	4	.6	2.7	.5	.9	2.4	6.3	3.1	8.3	1.0	(D)	(D)
10	Metal mining.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals.....	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Missouri, total	381	28	-	22	37	294
0 to 4 employees	175	13	-	13	28	121
5 to 9 employees	65	1	-	2	4	58
10 to 19 employees	65	4	-	1	1	59
20 to 49 employees	52	2	-	-	3	47
50 to 99 employees	13	2	-	4	-	7
100 to 249 employees	6	3	-	1	-	2
250 to 499 employees	1	1	-	-	-	-
500 to 999 employees	1	-	-	-	1	-
1,000 to 2,499 employees	3	2	-	1	-	-
Adair county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Andrew county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Audrain county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Barry county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Barton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Bates county, total	3	-	-	1	1	1
0 to 19 employees	2	-	-	1	1	-
20 to 99 employees	1	-	-	-	-	1
Benton county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Boone county, total	5	1	-	1	-	3
0 to 19 employees	3	1	-	-	-	2
20 to 99 employees	2	-	-	1	-	1
Buchanan county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Butler county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Caldwell county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Callaway county, total	6	-	-	1	-	5
0 to 19 employees	5	-	-	1	-	4
20 to 99 employees	1	-	-	-	-	1
Cape Girardeau county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Carroll county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Cass county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Cedar county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Christian county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Clark county, total	2	-	-	1	-	1
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	-	-	1
Clay county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Clinton county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Missouri--Continued						
Cole county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Cooper county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Crawford county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Dade county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Daviess county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Dent county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Douglas county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Dunklin county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Franklin county, total	14	2	-	-	1	11
0 to 19 employees	11	1	-	-	1	10
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	1	-	-	-	-
Gasconade county, total	12	-	-	-	-	12
0 to 19 employees	11	-	-	-	-	11
20 to 99 employees	1	-	-	-	-	1
Greene county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
Grundy county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Harrison county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Henry county, total	7	1	-	3	-	3
0 to 19 employees	5	1	-	1	-	3
20 to 99 employees	2	-	-	2	-	-
Hickory county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Holt county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Howard county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Howell county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Iron county, total	7	7	-	-	-	-
0 to 19 employees	4	4	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Jackson county, total	26	-	-	1	6	19
0 to 19 employees	19	-	-	-	5	14
20 to 99 employees	6	-	-	1	-	5
250 employees and over	1	-	-	-	1	-
Jasper county, total	10	5	-	-	-	5
0 to 19 employees	8	5	-	-	-	3
20 to 99 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Missouri--Continued						
Jefferson county, total	13	-	-	-	-	13
0 to 19 employees	10	-	-	-	-	10
20 to 99 employees	3	-	-	-	-	3
Johnson county, total	5	-	-	-	1	4
0 to 19 employees	5	-	-	-	1	4
Knox county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Laclede county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lafayette county, total	8	-	-	2	-	6
0 to 19 employees	8	-	-	2	-	6
Lewis county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Lincoln county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Linn county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Livingston county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Macon county, total	1	-	-	1	-	-
100 to 249 employees	1	-	-	1	-	-
Madison county, total	7	4	-	-	1	2
0 to 19 employees	7	4	-	-	1	2
Maries county, total	7	-	-	-	-	7
0 to 19 employees	7	-	-	-	-	7
Marion county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Mercer county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Miller county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Moniteau county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Monroe county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Montgomery county, total	7	-	-	-	-	7
0 to 19 employees	7	-	-	-	-	7
Morgan county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Newton county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Nodaway county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Oregon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Osage county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Pemiscot county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Perry county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Missouri--Continued						
Pettis county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Phelps county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Pike county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Platte county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Polk county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Pulaski county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Putnam county, total	4	-	-	2	1	1
0 to 19 employees	3	-	-	2	1	-
20 to 99 employees	1	-	-	-	-	1
Ralls county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Randolph county, total	3	-	-	2	-	1
0 to 19 employees	3	-	-	2	-	1
Ray county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Reynolds county, total	3	3	-	-	-	-
20 to 99 employees	2	2	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Ripley county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
St. Charles county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
St. Clair county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
St. Francois county, total	14	5	-	-	6	3
0 to 19 employees	10	3	-	-	6	1
20 to 99 employees	3	1	-	-	-	2
250 employees and over	1	1	-	-	-	-
St. Louis county, total	31	-	-	2	12	17
0 to 19 employees	20	-	-	2	9	9
20 to 99 employees	11	-	-	-	3	8
St. Louis City, total	15	-	-	2	6	7
0 to 19 employees	13	-	-	1	6	6
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	-	-	1	-	-
Ste. Genevieve county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Saline county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Scott county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Shannon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Shelby county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Missouri--Continued						
Stoddard county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Stone county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Sullivan county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Texas county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Vernon county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Warren county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Washington county, total	9	3	-	-	-	6
0 to 19 employees	5	2	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	3	1	-	-	-	2
Wayne county, total	2	1	-	-	-	1
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	1	-	-	-	-	1
Wright county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-885

1967 CENSUS OF Mineral Industries



MIC67(2)-25

AREA STATISTICS

MONTANA

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	8
5	General Statistics by County and Industry Groups: 1967 and 1963	9
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

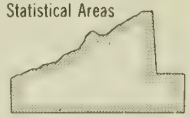
—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

MONTANA

Incorporated places of 25,000-100,000 ●
Standard Metropolitan Statistical Areas





U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]311	38	5.5	39.4	4.5	9.1	31.0	129.2
1963	[1]416	40	7.6	47.1	6.1	12.6	35.4	111.0
1958	440	39	8.4	44.1	5.8	11.0	27.9	115.9
1954	578	55	11.6	51.6	8.9	17.4	36.8	[2]82.9
Including operations in manufactures:								
1967	323	38	5.5	39.7	4.5	9.2	31.3	131.7
1963	427	40	7.6	47.2	6.1	12.6	35.5	112.1
1958	453	39	8.5	44.3	5.9	11.1	28.0	117.0
1954[3]	583	56	11.6	51.8	8.9	17.5	37.0	[2]83.9
1939[4]	[5]499	(NA)	11.6	17.7	10.3	19.9	14.7	34.9
1919[6]	295	(NA)	17.4	28.7	16.4	(NA)	26.2	37.0
1909[6]	647	(NA)	20.5	23.7	19.6	(NA)	22.2	27.5
1902[7]	[5]410	(NA)	11.7	13.4	[8]11.1	(NA)	12.4	22.9
Excluding oil and gas extraction industries:								
1967	117	16	3.8	27.5	3.2	6.3	21.9	39.4
1963	192	11	5.3	32.9	4.5	8.9	25.6	39.8
1958	221	19	6.3	31.2	4.6	8.5	21.3	46.8
1954[3]	291	27	8.9	38.6	7.0	13.3	28.6	[2]51.1
1939[4]	[5]305	(NA)	10.6	16.3	9.6	18.5	13.6	28.5
1929[9]	205	(NA)	15.9	29.5	15.0	(NA)	26.3	54.1
1919[10]	290	(NA)	17.3	28.7	16.4	(NA)	26.1	36.8

Kind of operation and year	Selected expenses				Value of shipments and receipts[12]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation[11] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[13]92.6	([13])	18.0	([13])	199.0	40.9	(NA)
1963	35.8	37.4	29.6	42.3	189.5	66.7	2.9
1958	29.7	33.0	17.6	7.5	180.3	23.4	2.9
1954	26.0	35.7	24.1	10.6	[2]147.5	31.7	2.5
Including operations in manufactures:							
1967	[14]110.8	([14])	([14])	([14])	201.5	(NA)	(NA)
1963	[15]36.0	37.4	[15]29.6	[16]42.3	190.7	[16]66.7	[16]2.9
1958	[15]29.8	33.0	[15]17.6	[16]7.5	181.5	[16]23.4	[16]2.9
1954[2]	[15]26.2	35.7	[15]24.1	[16]10.6	[2]148.7	[16]31.7	[16]2.5
1939[3]	9.3	(NA)	0.6	(NA)	44.7	(NA)	1.2
1919[5]	12.7	0.1	0.1	(NA)	49.9	(NA)	[17]2.8
1909[5]	20.4	6.6	0.5	(NA)	55.0	(NA)	(NA)
1902[6]	5.3	(NA)	0.1	(NA)	28.3	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[14]18.5	([14])	([14])	([14])	92.4	(NA)	(NA)
1963	[18]20.6	[19]36.4	[15]8.7	[16]31.3	96.9	[16]40.0	[16]1.3
1958	[18]16.5	[19]32.2	[15]2.2	[16]2.3	93.9	[16]6.1	[16]1.3
1954[2]	[15]15.4	35.6	[15]3.8	[16]4.2	[2]103.0	[16]7.1	[16]1.3
1939[3]	8.7	(NA)	0.1	(NA)	37.4	(NA)	0.8
1929[8]	10.8	(NA)	0.3	1.4	65.2	(NA)	1.4
1919[9]	12.6	0.1	0.1	(NA)	49.7	(NA)	[17]2.6

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Montana--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 77 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes figures for the Uranium-Radium-Vanadium Ores Industry. No data on value of shipments were obtained for this industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Excludes data for dimension stone dressing plants, if any, operated in conjunction with 2 dimension stone quarries. For "All operations" excludes data for one or two oil and gas field hauling operations, with receipts for services amounting to less than $417 thousand; such operations were not classified in the mineral industries after 1939. For "Excluding oil and gas extraction industries" includes data for one natural gas liquids plant.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand and gravel operations. In 1939, there were 7 such mines with products valued at $338 thousand. See also footnote 8. Also, for 1919 and 1909, excludes data for any stone quarries operated as part of cement or lime establishments.

[7]Includes data for lime plants producing lime valued at $9 thousand. See also footnote 5.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Excludes data for common clay and shale operations. There were only 2 such mines in 1939.

[10]Only one nonproducing establishment was reported in the Crude Petroleum and Natural Gas Industry in 1909 and none in 1902. Hence, the figures shown above for "All operations" are essentially comparable with those shown for operations "Excluding oil and gas extraction industries." See also footnote 7.

[11]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants, but for 1954 includes the estimated value prior to processing of natural gas liquids contained in such gas.

[12]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Minerals received for preparation." For all other years the figures represent net production and exclude this duplication.

[13]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[15]For crushed and broken stone, sand and gravel, clay and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[16]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[17]Excludes purchased electric energy. For 1939, the quantity of purchased electric energy amounted to 27 percent of the total kw.-hrs. equivalent of energy used; and for the operations shown for 1929, to 23 percent.

[18]Includes the cost of minerals received for preparation in the Nonmetallic Minerals Mining Industries, and for 1963, in the Bituminous Coal Industry. See also footnote 12.

[19]Represents only minerals received in the Metal Mining Industries for 1963 and 1958 and in the Bituminous Coal and Lignite Mining Industries for 1958.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	311	38	5.5	39.4	4.5	9.1	31.0	129.2	110.6	199.0	40.9	7.6	111.0
10	Metal mining	42	8	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.3	28.4
1021	Copper ores	9	5	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.6	23.5
103	Lead and zinc ores	9	-	0.1	0.4	(Z)	0.1	0.3	0.7	0.5	1.0	0.2	0.5	3.7
1081	Metal mining services	5	2	0.1	0.9	0.1	0.3	0.9	1.4	0.9	2.2	(Z)	(D)	(D)
12	Bituminous coal and lignite mining	15	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	0.1	(NA)
121	Bituminous coal and lignite mining	15	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	10	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	206	22	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.3	72.3
1311	Crude petroleum and natural gas	107	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.1	59.0
	Crude petroleum	100	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	58.1
	Natural gas	7	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	0.1	1.0
138	Oil and gas field services	96	14	1.0	7.5	0.9	2.1	6.7	16.1	12.5	25.8	2.8	(D)	(D)
1381	Drilling oil and gas wells	36	9	0.6	4.2	0.6	1.2	3.9	8.5	9.9	16.3	2.2	0.7	9.6
1389	Oil and gas field services, n.e.c.	46	5	0.4	3.2	0.3	0.9	2.6	7.1	2.4	8.8	0.6	0.3	2.5
14	Nonmetallic minerals, except fuels	48	8	1.0	6.8	0.9	1.7	5.9	11.9	5.1	16.2	0.8	0.9	(NA)
144	Sand and gravel	21	-	0.1	0.4	0.1	0.1	0.4	1.0	0.5	1.5	0.1	0.2	2.0
1442	Construction sand and gravel	21	-	0.1	0.4	0.1	0.1	0.4	1.0	0.5	1.5	0.1	(D)	(D)
147	Chemical and fertilizer minerals	6	4	0.6	4.3	0.5	1.0	3.7	6.8	2.9	9.6	0.1	0.5	4.6
1475	Phosphate rock	5	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	10	3	0.2	1.5	0.2	0.5	1.4	3.0	1.3	4.0	0.3	0.2	2.3
1496	Talc, soapstone, and pyrophyllite	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels.....	12	-	(Z)	0.3	(Z)	0.1	0.3	1.5	0.2	1.7	(NA)	(Z)	1.1

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Montana:													
	Establishments.....number..	311	293	96	28	12	56	31	7	22	2	10	156	18
	Employees.....1,000..	5.5	5.4	2.7	0.3	(Z)	2.4	0.7	(D)	(D)	(D)	0.4	1.5	(Z)
	Value added in mining..mil.dol..	129.2	129.9	98.1	3.7	0.4	93.9	9.0	(D)	(D)	(D)	5.1	18.8	-.7
10	Metal mining:													
	Establishments.....number..	42	38	24	18	5	1	3	2	1	-	5	6	4
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)
101	Iron ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	9	9	5	-	4	1	-	-	-	-	3	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(Z)	(D)	-	-	-	-	(D)	(D)	-
103	Lead and zinc ores:													
	Establishments.....number..	9	8	7	7	-	-	-	-	-	-	1	-	1
	Employees.....1,000..	0.1	(D)	(D)	(D)	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	0.7	(D)	(D)	(D)	-	-	-	-	-	-	(D)	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	14	13	11	11	-	-	2	1	1	-	-	-	1
	Employees.....1,000..	(Z)	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	0.2	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	2	2	-	-	-	-	1	1	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	(D)	-	-
108	Metal mining services:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	0.1	0.1	-	-	-	-	-	-	-	-	-	0.1	-
	Value added in mining..mil.dol..	1.4	1.4	-	-	-	-	-	-	-	-	-	1.4	-
109	Miscellaneous metal ores:													
	Establishments.....number..	2	-	-	-	-	-	-	-	-	-	-	-	2
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	15	15	11	7	4	-	3	2	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(Z)	-	(D)	(D)	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(Z)	-	(D)	(D)	(D)	-	(D)	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	15	15	11	7	4	-	3	2	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(Z)	-	(D)	(D)	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(Z)	-	(D)	(D)	(D)	-	(D)	-	-
13	Oil and gas extraction:													
	Establishments.....number..	206	193	55	-	-	55	-	-	-	-	3	135	13
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(Z)	1.2	(Z)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	1.2	16.9	-.8
131	Crude petroleum and natural gas:													
	Establishments.....number..	107	94	55	-	-	55	-	-	-	-	-	39	13
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(Z)	(Z)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	0.8	-.8

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Montana--Continued													
132	Natural gas liquids:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	3	-	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	(Z)	-	-
	Value added in mining..mil.dol..	1.2	1.2	-	-	-	-	-	-	-	-	1.2	-	-
138	Oil and gas field services:													
	Establishments.....number..	96	96	-	-	-	-	-	-	-	-	-	96	-
	Employees.....1,000..	1.0	1.0	-	-	-	-	-	-	-	-	-	1.0	-
	Value added in mining..mil.dol..	16.1	16.1	-	-	-	-	-	-	-	-	-	16.1	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	48	47	6	3	3	-	25	3	20	2	1	15	1
	Employees.....1,000..	1.0	(D)	0.3	(D)	(D)	-	0.6	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	11.9	(D)	3.4	(D)	(D)	-	7.9	(D)	(D)	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	7	7	-	-	-	-	7	-	7	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	(Z)	-	(Z)	-	-	-	-
	Value added in mining..mil.dol..	0.6	0.6	-	-	-	-	0.6	-	0.6	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	21	21	1	-	1	-	6	-	6	-	1	13	-
	Employees.....1,000..	0.1	0.1	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	1.0	1.0	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	6	6	2	1	1	-	4	1	1	2	-	-	-
	Employees.....1,000..	0.6	0.6	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	6.8	6.8	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	-	-
148	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	10	9	2	2	-	-	7	2	5	-	-	-	1
	Employees.....1,000..	0.2	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	3.0	(D)	(D)	(D)	-	-	(D)	(D)	(D)	-	-	-	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	311	416	Cost of supplies, total.....million dollars..	110.6	145.2
With 0 to 19 employees.....do....	273	376	Supplies used, minerals received for preparation, and purchased machinery.....do....	86.9	(NA)
With 20 to 99 employees.....do....	30	32	Cost of resales.....do....	0.1	(NA)
With 100 or more employees.....do....	8	8	Purchased fuels consumed.....do....	2.2	(NA)
All employees (average for year).....1,000..	5.5	7.6	Electric energy:		
			Quantity purchased.....million kw.-hrs..	442.1	(NA)
Payroll (all employees), total for year.....million dollars..	39.4	47.1	Cost.....million dollars..	3.3	(NA)
			Generated less sold.....million kw.-hrs..	0.4	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	18.0	29.6
Average for the year.....1,000..	4.5	6.1	Value of shipments and receipts (including resales), total.....do....	199.0	189.5
March.....do....	6.6	(NA)	Value of resales.....do....	0.3	(NA)
May.....do....	6.1	(NA)			
August.....do....	2.8	(NA)	Value added in mining.....do....	129.2	111.0
November.....do....	2.6	(NA)			
Man-hours.....millions..	9.1	12.6	Capital expenditures (except land and mineral rights), total.....do....	40.9	66.7
Wages.....million dollars..	31.0	35.4	Mineral development and exploration.....do....	12.6	20.1
			New structures and additions.....do....	4.4	} 46.6
Supplemental labor cost not included in payroll.....do..	6.0	(NA)	New machinery and equipment.....do....	23.1	
			Used plant and equipment.....do....	0.8	
Legally required expenditures, including Social Security contributions.....do..	2.6	(NA)	Mineral development and exploration expenditures, total.....do....	20.2	(NA)
Payments for voluntary programs.....do..	3.4	(NA)	Capitalized.....do....	12.6	20.1
			Expensed.....do....	7.6	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Montana, total	311	38	5.5	39.4	4.5	9.1	31.0	129.2	110.6	199.0	40.9	7.6	111.0
	COUNTIES[2]													
	Beaverhead county, total	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Dawson county, total	24	4	0.2	1.7	0.1	0.4	1.3	7.0	2.5	6.6	2.7	0.2	6.1
13	Oil and gas extraction	23	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	15	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Deer Lodge county, total	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fallon county, total	24	3	0.2	1.6	0.2	0.4	1.4	24.6	5.6	26.7	3.5	0.4	26.1
13	Oil and gas extraction	24	3	0.2	1.6	0.2	0.4	1.4	24.6	5.6	26.7	3.5	0.4	26.1
138	Oil and gas field services	13	2	0.1	1.1	0.1	0.3	1.0	2.2	2.0	3.8	0.4	(D)	(D)
	Glacier county, total	37	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	0.3	4.9
13	Oil and gas extraction	37	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	20	4	0.1	1.1	0.1	0.2	0.8	7.5	3.9	8.3	3.1	0.2	4.2
138	Oil and gas field services	16	1	0.1	0.7	0.1	0.2	0.6	0.8	0.2	1.0	0.1	(D)	(D)
	Granite county, total	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lincoln county, total	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Powell county, total	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Silver Bow county, total	9	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	8	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	4	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Toole county, total	47	1	0.1	0.9	0.1	0.2	0.6	2.8	1.3	3.4	0.7	0.2	1.5
13	Oil and gas extraction	47	1	0.1	0.9	0.1	0.2	0.6	2.8	1.3	3.4	0.7	(D)	(D)
	Yellowstone county, total	44	4	0.4	2.7	0.3	0.6	1.7	3.2	4.3	4.8	2.6	0.6	0.5
13	Oil and gas extraction	39	4	0.4	2.6	0.3	0.6	1.7	3.0	(D)	4.7	(D)	0.5	(3)
131	Crude petroleum and natural gas	16	2	0.1	0.9	(Z)	0.1	0.2	1.5	(D)	1.0	(D)	0.4	(3)
138	Oil and gas field services	23	2	0.3	1.7	0.3	0.6	1.4	1.6	(D)	3.7	(D)	0.1	1.2

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

[3] Not shown since cost of supplies, purchased fuels and electricity, contract work, and purchased machinery installed exceed value of shipments and capital expenditures.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Montana, total	311	42	-	15	206	48
0 to 4 employees	202	24	-	11	141	26
5 to 9 employees	39	6	-	2	23	8
10 to 19 employees	32	4	-	2	20	6
20 to 49 employees	21	3	-	-	15	3
50 to 99 employees	9	2	-	-	5	2
100 to 249 employees	5	1	-	-	2	2
250 to 499 employees	2	1	-	-	-	1
1,000 to 2,499 employees	1	1	-	-	-	-
Beaverhead county, total	7	2	-	-	-	5
0 to 19 employees	5	2	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Big Horn county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Blaine county, total	12	-	-	1	11	-
0 to 19 employees	12	-	-	1	11	-
Broadwater county, total	3	2	-	-	1	-
0 to 19 employees	3	2	-	-	1	-
Carbon county, total	12	-	-	2	10	-
0 to 19 employees	12	-	-	2	10	-
Carter county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Cascade county, total	13	4	-	-	4	5
0 to 19 employees	13	4	-	-	4	5
Chouteau county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Custer county, total	9	-	-	-	8	1
0 to 19 employees	9	-	-	-	8	1
Daniels county, total	5	-	-	-	5	-
0 to 19 employees	4	-	-	-	4	-
20 to 99 employees	1	-	-	-	1	-
Dawson county, total	24	-	-	-	23	1
0 to 19 employees	20	-	-	-	19	1
20 to 99 employees	4	-	-	-	4	-
Deer Lodge county, total	5	4	-	-	-	1
0 to 19 employees	4	3	-	-	-	1
100 to 249 employees	1	1	-	-	-	-
Fallon county, total	24	-	-	-	24	-
0 to 19 employees	21	-	-	-	21	-
20 to 99 employees	3	-	-	-	3	-
Fergus county, total	5	-	-	-	3	2
0 to 19 employees	5	-	-	-	3	2
Flathead county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Gallatin county, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Garfield county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Glacier county, total	37	-	-	-	37	-
0 to 19 employees	32	-	-	-	32	-
20 to 99 employees	5	-	-	-	5	-
Golden Valley county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Granite county, total	8	6	-	-	-	2
0 to 19 employees	6	5	-	-	-	1
20 to 99 employees	1	1	-	-	-	-
100 to 249 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Montana--Continued						
Hill county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Jefferson county, total	5	3	-	-	-	2
0 to 19 employees	5	3	-	-	-	2
Lewis and Clark county, total	5	4	-	-	-	1
0 to 19 employees	4	3	-	-	-	1
20 to 99 employees	1	1	-	-	-	-
Liberty county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Lincoln county, total	3	2	-	-	-	1
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
100 to 249 employees	1	-	-	-	-	1
McCone county, total	8	-	-	-	7	1
0 to 19 employees	8	-	-	-	7	1
Madison county, total	5	2	-	1	-	2
0 to 19 employees	4	2	-	1	-	1
20 to 99 employees	1	-	-	-	-	1
Meagher county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Missoula county, total	5	2	-	-	-	3
0 to 19 employees	5	2	-	-	-	3
Musselshell county, total	25	-	-	7	18	-
0 to 19 employees	25	-	-	7	18	-
Park county, total	4	1	-	-	-	3
0 to 19 employees	4	1	-	-	-	3
Petroleum county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Phillips county, total	5	1	-	-	2	2
0 to 19 employees	5	1	-	-	2	2
Pondera county, total	14	-	-	-	14	-
0 to 19 employees	14	-	-	-	14	-
Powder River county, total	14	-	-	-	14	-
0 to 19 employees	13	-	-	-	13	-
20 to 99 employees	1	-	-	-	1	-
Powell county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Prairie county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Ravalli county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Richland county, total	10	-	-	2	8	-
0 to 19 employees	10	-	-	2	8	-
Roosevelt county, total	18	-	-	-	18	-
0 to 19 employees	18	-	-	-	18	-
Rosebud county, total	14	1	-	1	11	1
0 to 19 employees	14	1	-	1	11	1
Sanders county, total	3	2	-	-	1	-
0 to 19 employees	3	2	-	-	1	-
Sheridan county, total	23	-	-	1	22	-
0 to 19 employees	22	-	-	1	21	-
20 to 99 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Montana--Continued						
Silver Bow county, total	9	8	-	-	-	1
0 to 19 employees	5	4	-	-	-	1
20 to 99 employees	2	2	-	-	-	-
250 employees and over	2	2	-	-	-	-
Stillwater county, total	4	1	-	-	3	-
0 to 19 employees	4	1	-	-	3	-
Teton county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Toole county, total	47	-	-	-	47	-
0 to 19 employees	46	-	-	-	46	-
20 to 99 employees	1	-	-	-	1	-
Treasure county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Valley county, total	4	1	-	-	-	3
0 to 19 employees	4	1	-	-	-	3
Wheatland county, total	2	1	-	-	1	-
0 to 19 employees	2	1	-	-	1	-
Wibaux county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Yellowstone county, total	44	2	-	-	39	3
0 to 19 employees	40	2	-	-	35	3
20 to 99 employees	2	-	-	-	2	-
100 to 249 employees	2	-	-	-	2	-

Standard Notes: - Represents zero.

[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

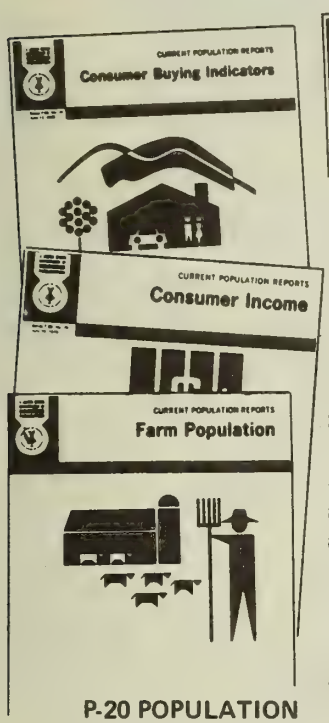
In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

CURRENT POPULATION REPORTS

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.

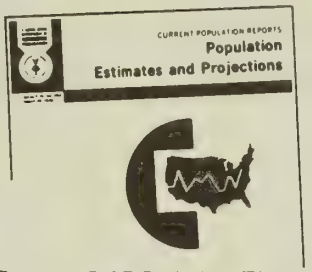


P-20 POPULATION CHARACTERISTICS.

Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.

P-23 SPECIAL STUDIES.

Infrequent reports on methods, concepts, or specialized data.



P-25 POPULATION ESTIMATES AND PROJECTIONS.

Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES.

Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.

P-27 FARM POPULATION.

(Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES.

Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

P-60 CONSUMER INCOME.

Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

P-65 CONSUMER BUYING INDICATORS.

Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

C3.186: (Nos.)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

From the Bureau of the Census



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-886

1967 CENSUS OF Mineral Industries



MIC67(2)-26

AREA STATISTICS

NEBRASKA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

NEBRASKA



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]254	24	1.6	9.9	1.4	2.8	7.9	43.1
1963	[1]370	21	2.1	11.2	1.7	3.8	8.6	69.3
1958	305	27	2.1	9.2	1.7	3.4	7.2	64.0
1954	249	21	1.6	6.6	1.4	3.3	5.7	29.2
Including operations in manufactures:								
1967	266	25	1.7	10.2	1.5	2.9	8.2	44.7
1963	379	22	2.2	11.6	1.8	3.9	9.0	70.6
1958	317	29	2.2	9.6	1.8	3.6	7.6	65.9
1954[2]	259	22	1.7	7.0	1.5	3.5	6.1	30.1
1939[3]	[4]67	(NA)	.5	.5	.5	1.0	.4	.9
1929[5]	24	(NA)	.3	.7	.3	(NA)	.5	1.7
1919	-	-	-	-	-	-	-	-
1909	-	-	-	-	-	-	-	-
1902	-	-	-	-	-	-	-	-
Excluding sand, gravel, common clay, and shale operations:								
1967	153	16	(D)	(D)	(D)	(D)	(D)	(D)
1963	210	17	1.3	7.4	1.1	2.2	5.7	61.7
1958	186	22	1.5	6.7	1.2	2.4	5.3	59.7
1954	119	14	1.0	4.4	.9	1.9	3.8	25.1
1939[3]	[4]21	(NA)	.2	.2	.2	.5	.2	.4
1929[6]	6	(NA)	.2	.2	.1	(NA)	.2	.4
1919[7]	9	(NA)	.2	.2	.2	(NA)	.2	.2
1909[7]	18	(NA)	.4	.2	.4	(NA)	.2	.3
1902	[4]36	(NA)	.2	.1	[8].2	(NA)	.1	.1

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]15.0	([10])	4.8	([10])	55.6	7.2	
1963	[12]14.9	([12])	9.7	4.6	87.8	10.7	1.6
1958	[12]14.6	([12])	11.5	5.3	81.2	14.3	1.5
1954	[12]6.9	([12])	8.7	8.4	36.8	16.4	.7
Including operations in manufactures:							
1967	[11]20.0	([11])	([11])	([11])	57.4	(NA)	(NA)
1963	[12] [13]15.2	([12])	[13]9.7	[14]4.6	89.3	[14]10.7	[14]1.6
1958	[12] [13]14.9	([12])	[13]11.5	[14]5.3	83.3	[14]14.3	[14]1.5
1954[2]	[12] [13]7.7	[12](NA)	[13]8.7	[14]8.4	38.4	[14]16.4	[14].7
1939[3]	.3	(NA)	.1	(NA)	1.4	(NA)	.1
1929[5]	.4	(NA)	(Z)	.1	2.1	(NA)	(Z)
1919	-	-	-	-	-	-	-
1909	-	-	-	-	-	-	-
1902	-	-	-	-	-	-	-
Excluding sand, gravel, common clay, and shale operations:							
1967	(D)	(D)	(D)	(D)	(D)	(NA)	
1963	[12] [13]12.5	([12])	[13]9.0	[14]3.3	77.3	[14]9.2	[14]1.5
1958	[12] [13]12.6	([12])	[13]11.0	[14]4.9	74.7	[14]13.5	[14]1.3
1954	[12] [13]5.7	([12])	[13]8.5	[14]7.5	31.2	[14]15.6	[14].5
1939[3]	.1	(NA)	71	(NA)	.6	(NA)	(Z)
19							
1929[6]	.1	(NA)	-	(Z)	.5	(NA)	(Z)
1919[7]	.1	-	-	(NA)	.3	(NA)	[15](Z)
1909[7]	.1	-	(Z)	(NA)	.3	(NA)	(NA)
1902	(Z)	(NA)	-	(NA)	.1	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Nebraska--Continued

Standard Notes: - Represents zero.(D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 42 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Excludes data for dimension stone dressing plants, if any, operated in conjunction with 3 dimension limestone quarries.

[4]Represents number of mines and quarries and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for common clay and shale pits and for oil and gas extraction operations, if any. In 1939, there were 8 such clay pits with products valued at $57 thousand, 2 nonproducing operations in the crude petroleum and natural gas industry, and one oil and gas field service operation.

[6]Excludes data for oil and gas extraction operations, if any.

[7]Excludes data for stone quarries operated as parts of cement and lime plants, if any. There was one such quarry in 1929. Also excludes for 1909, data for one nonproducing coal mine.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]The cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electricity.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to about one-fourth of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	254	24	1.6	9.9	1.4	2.8	7.9	43.1	19.8	55.6	7.2	2.1	69.3
13	Oil and gas extraction	113	10	.7	4.2	.6	1.1	3.5	31.3	13.0	38.7	5.6	.9	59.7
1311	Crude petroleum and natural gas	64	3	.3	1.9	.2	.4	1.4	22.9	8.6	28.9	2.5	.4	50.0
	Crude petroleum	63	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	45	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	6.2
1381	Drilling oil and gas wells	11	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.6
1389	Oil and gas field services, n.e.c.	33	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.7
14	Nonmetallic minerals, except fuels	140	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone	22	5	.3	1.7	.2	.6	1.5	3.8	2.5	5.8	.6	(NA)	(NA)
1422	Crushed and broken limestone	22	5	.3	1.7	.2	.6	1.5	3.8	(D)	5.8	(D)	.3	2.9
144	Sand and gravel	111	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	8.7
1442	Construction sand and gravel	111	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	12	1	0.1	0.3	0.1	0.1	0.3	1.6	0.2	1.8	(NA)	0.1	1.3

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments[1]
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Nebraska:													
	Establishments.....number..	254	252	64	-	11	53	66	-	56	10	6	116	2
	Employees.....1,000..	1.6	(D)	.3	-	(D)	(D)	.7	-	.5	.2	(D)	.6	(D)
	Value added in mining..mil.dol..	43.1	(D)	24.0	-	(D)	(D)	8.5	-	7.2	1.3	(D)	7.5	(D)
10	Metal mining:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
102	Copper ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	113	111	52	-	-	52	-	-	-	-	4	55	2
	Employees.....1,000..	.7	(D)	(D)	-	-	(D)	-	-	-	-	(D)	.4	(D)
	Value added in mining..mil.dol..	31.3	(D)	(D)	-	-	(D)	-	-	-	-	(D)	5.6	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	64	62	52	-	-	52	-	-	-	-	-	10	2
	Employees.....1,000..	.3	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	22.9	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
132	Natural gas liquids:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	4	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	45	45	-	-	-	-	-	-	-	-	-	45	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	140	140	11	-	10	1	66	-	56	10	2	61	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	(D)	.7	-	.5	.2	(D)	.2	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	(D)	8.5	-	7.2	1.3	(D)	1.9	-
141	Dimension stone:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	.1	.1	.1	-	.1	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	22	22	3	-	3	-	18	-	17	1	1	-	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	-	-
	Value added in mining..mil.dol..	3.8	3.8	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	-	-
144	Sand and gravel:													
	Establishments.....number..	111	111	5	-	4	1	46	-	37	9	1	59	-
	Employees.....1,000..	.7	.7	(D)	-	(D)	(D)	.5	-	(D)	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	7.8	7.8	(D)	-	(D)	(D)	5.3	-	(D)	(D)	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	-	-	-	-	1	-	1	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
148	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	254	370	Cost of supplies, total.....million dollars..	19.8	29.1
With 0 to 19 employees.....do....	230	349	Supplies used, minerals received for preparation, and purchased machinery.....do....	11.8	(NA)
With 20 to 99 employees.....do....	24	21	Cost of resales.....do....	.3	(NA)
With 100 or more employees.....do....	-	-	Purchased fuels consumed.....do....	1.8	(NA)
All employees (average for year).....1,000..	1.6	2.1	Electric energy:		
Payroll (all employees), total for year.....million dollars..	9.9	11.2	Quantity purchased.....million kw.-hrs..	55.8	(NA)
			Cost.....million dollars..	1.1	(NA)
			Generated less sold.....million kw.-hrs..	2.1	(NA)
			Contract work.....million dollars..	4.8	9.7
Production, development, and exploration workers:					
Average for the year.....1,000..	1.4	1.7	Value of shipments and receipts (including resales), total.....do....	55.6	87.8
March.....do....	1.2	(NA)	Value of resales.....do....	.5	(NA)
May.....do....	1.4	(NA)			
August.....do....	1.5	(NA)	Value added in mining.....do....	43.1	69.3
November.....do....	1.4	(NA)			
Man-hours.....millions..	2.8	3.8	Capital expenditures (except land and mineral rights), total.....do....	7.2	10.7
Wages.....million dollars..	7.9	8.6	Mineral development and exploration.....do....	1.1	4.0
			New structures and additions.....do....	2.4	6.6
Supplemental labor cost not included in payroll.....do..	.8	(NA)	New machinery and equipment.....do....	3.1	
			Used plant and equipment.....do....	.6	
			Mineral development and exploration expenditures, total.....do....	1.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	.5	(NA)	Capitalized.....do....	1.1	4.0
Payments for voluntary programs.....do..	.3	(NA)	Expensed.....do....	.7	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Nebraska, total	254	24	1.6	9.9	1.4	2.8	7.9	43.1	19.8	55.6	7.2	2.1	69.3
	COUNTIES[2]													
	Cass county, total	8	2	.1	.6	.1	.2	.5	1.6	.8	2.3	.2	.2	1.9
14	Nonmetallic minerals, except fuels	8	2	.1	.6	.1	.2	.5	1.6	.8	2.3	.2	.2	1.9
	Douglas county, total	15	4	.2	1.1	.1	.2	.7	1.7	1.1	2.5	.3	.1	1.2
14	Nonmetallic minerals, except fuels	11	4	.2	1.1	.1	.2	.7	1.7	1.1	2.5	.3	(D)	(D)
144	Sand and gravel	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Kimball county, total	63	5	.3	2.2	.3	.6	1.9	11.6	3.9	12.3	3.3	.3	16.0
13	Oil and gas extraction	63	5	.3	2.2	.3	.6	1.9	11.6	3.9	12.3	3.3	.3	16.0
138	Oil and gas field services	29	4	.2	1.5	.2	.5	1.3	3.2	1.4	3.9	.7	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Nebraska, total	254	1	-	-	113	140
0 to 4 employees	155	1	-	-	71	83
5 to 9 employees	35	-	-	-	16	19
10 to 19 employees	40	-	-	-	16	24
20 to 49 employees	24	-	-	-	10	14
Adams county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Antelope county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Banner county, total	28	-	-	-	28	-
0 to 19 employees	26	-	-	-	26	-
20 to 99 employees	2	-	-	-	2	-
Boone county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Box Butte county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Brown county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Buffalo county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Butler county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Cass county, total	8	-	-	-	-	8
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	2	-	-	-	-	2
Cedar county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cheyenne county, total	34	-	-	-	34	-
0 to 19 employees	33	-	-	-	33	-
20 to 99 employees	1	-	-	-	1	-
Clay county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Colfax county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Cuming county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Custer county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Dawes county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Dawson county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Deuel county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Dixon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Dodge county, total	6	-	-	-	-	6
0 to 19 employees	6	-	-	-	-	6
Douglas county, total	15	-	-	-	4	11
0 to 19 employees	11	-	-	-	4	7
20 to 99 employees	4	-	-	-	-	4
Dundy county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Fillmore county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Franklin county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Nebraska--Continued						
Frontier county, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1
Furnas county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Gage county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Garden county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Gosper county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Hall county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Harlan county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hayes county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hitchcock county, total	13	-	-	-	11	2
0 to 19 employees	13	-	-	-	11	2
Holt county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Howard county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Jefferson county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Keith county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Kimball county, total	63	-	-	-	63	-
0 to 19 employees	58	-	-	-	58	-
20 to 99 employees	5	-	-	-	5	-
Knox county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Lancaster county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Lincoln county, total	5	1	-	-	2	2
0 to 19 employees	5	1	-	-	2	2
Madison county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Morrill county, total	15	-	-	-	14	1
0 to 19 employees	15	-	-	-	14	1
Nance county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Nuckolls county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Otoe county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Pawnee county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Phelps county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Pierce county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Nebraska--Continued						
Platte county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
Polk county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Red Willow county, total	15	-	-	-	13	2
0 to 19 employees	14	-	-	-	12	2
20 to 99 employees	1	-	-	-	1	-
Richardson county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Sarpy county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Saunders county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Scotts Bluff county, total	16	-	-	-	14	2
0 to 19 employees	15	-	-	-	14	1
20 to 99 employees	1	-	-	-	-	1
Seward county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Sheridan county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Sioux county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Stanton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Thayer county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Valley county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Washington county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wayne county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Webster county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-887

1967 CENSUS OF Mineral Industries



MIC67(2)-27

AREA STATISTICS

NEVADA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

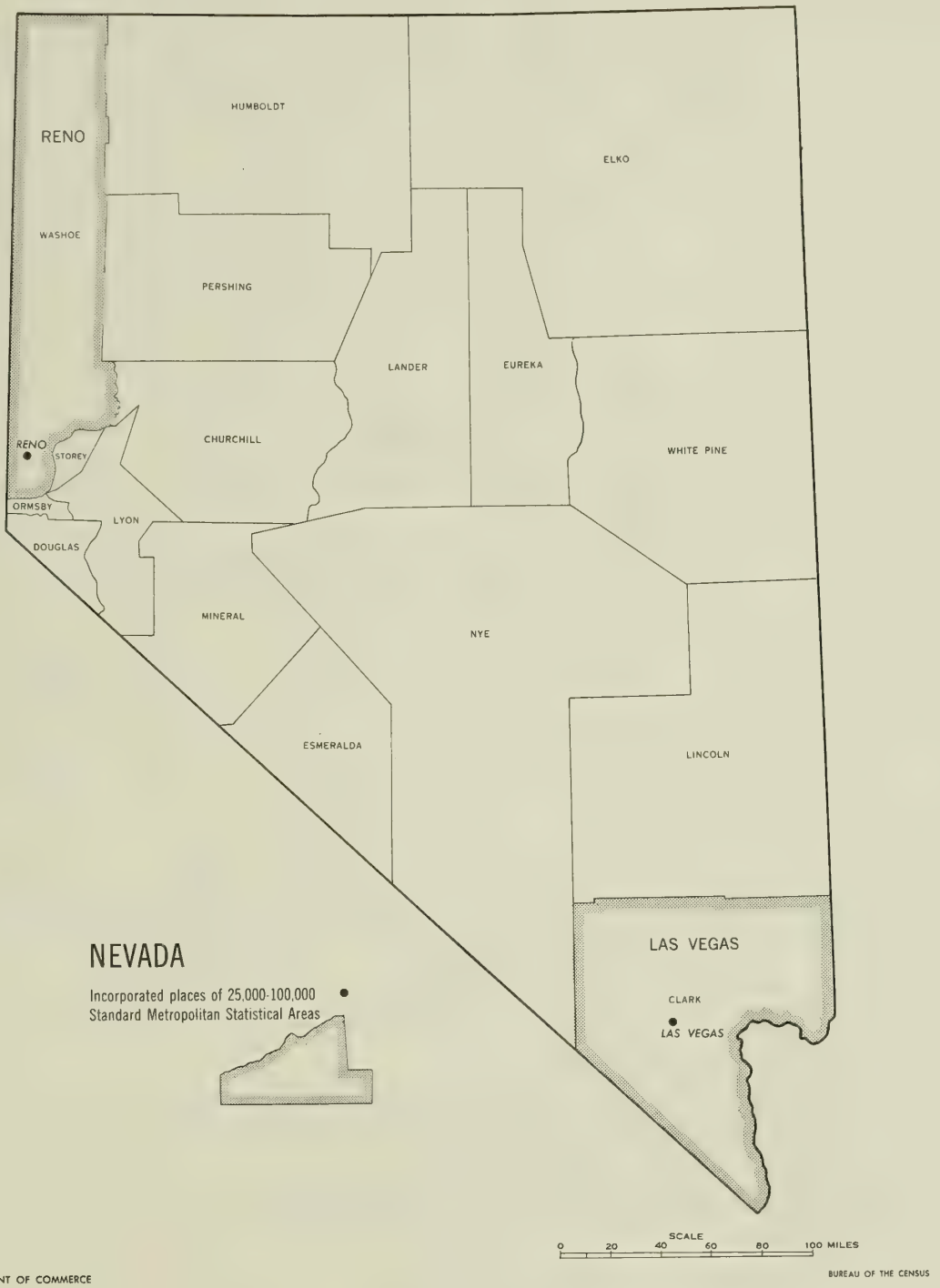

RENO
HUMBOLDT
ELKO
WASHOE
PERSHING
LANDER
EUREKA
CHURCHILL
WHITE PINE
RENO
STOREY
ORMSBY
LYON
DOUGLAS
MINERAL
NYE
ESMERALDA
LINCOLN
LAS VEGAS
CLARK
LAS VEGAS
NEVADA
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
SCALE
0 20 40 60 80 100 MILES
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]131	21	2.9	22.8	2.4	5.2	18.3	54.9
1963	[1]204	18	2.7	17.3	2.3	5.0	14.4	39.6
1958	203	28	3.1	16.3	2.5	5.0	12.6	32.3
1954	450	41	5.3	25.5	4.6	10.2	21.6	[2]53.4
Including operations in manufactures:								
1967	138	21	3.0	23.3	2.5	5.3	18.8	57.4
1963	216	19	2.9	18.2	2.5	5.3	15.3	44.7
1958	208	30	3.2	16.7	2.6	5.2	13.0	34.3
1954[3]	454	43	5.3	25.8	4.7	10.4	21.9	[2]54.8
1939	[4]295	(NA)	5.7	9.2	5.1	11.3	7.9	18.7
1929[5]	181	(NA)	5.8	10.5	5.2	(NA)	8.9	18.8
1919[6]	321	(NA)	5.6	9.9	4.9	(NA)	8.5	9.4
1909[6]	548	(NA)	6.6	8.5	5.8	(NA)	7.3	15.7
1902[7]	[4]196	(NA)	2.0	2.3	[8]1.7	(NA)	1.9	2.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]40.4	([10])	7.0	([10])	87.5	14.9	(NA)
1963	[11]32.0	([9])	2.0	2.9	70.8	5.7	1.0
1958	[11]30.6	([9])	2.9	7.6	63.8	9.7	.9
1954	26.1	14.8	14.0	4.4	[2]102.5	10.3	.9
Including operations in manufactures:							
1967	[12]47.7	([12])	[12](NA)	([12])	90.3	(NA)	(NA)
1963	[11] [13]33.2	([9])	[13]2.0	[14]2.9	77.1	[14]5.7	[14]1.0
1958	[11] [13]31.2	([9])	[13]2.9	[14]7.6	66.3	[14]9.7	14.9
1954[2]	[13]26.3	14.8	[13]14.0	[14]4.4	[2]104.1	[14]10.3	14.9
1939	6.0	(NA)	.9	(NA)	25.6	(NA)	.5
1929[4]	7.5	(NA)	.4	2.1	26.7	(NA)	1.0
1919[5]	8.3	-	.4	(NA)	18.1	(NA)	[15]1.0
1909[5]	5.6	1.6	.3	(NA)	23.3	(NA)	(NA)
1902[6]	1.1	(NA)	(Z)	(NA)	3.5	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 60 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[4]Represents number of mines and quarries and, for mining services industries, number of operating companies.

[5]Excludes data for common clay and shale mining operations, if any. Only one such operation was reported for 1939.

[6]Excludes data for sand and gravel mining operations and stone quarries operated as parts of lime plants. For 1929, 3 sand and gravel mining operations were reported and one such stone quarry. See also footnote 5.

[7]May include data for one lime plant producing lime valued at less than $73 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1939 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. For all other years represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Figure for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, and gypsum mining operations in manufacturing establishments, and, for 1963, data for dimension stone quarries in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 4 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	131	21	2.9	22.8	2.4	5.2	18.3	54.9	47.4	87.5	14.9	2.7	39.6
10	Metal mining	72	13	2.1	16.7	1.7	3.7	13.2	38.5	39.5	65.3	12.8	2.1	28.1
1011	Iron ores	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.6
1021	Copper ores	13	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	15	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.5
1042	Lode gold	9	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.2
1081	Metal mining services	10	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	17	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1092	Mercury ores	11	2	.2	1.0	.1	.3	.9	1.7	.7	2.3	.1	(D)	(D)
13	Oil and gas extraction	15	1	.1	.6	.1	.2	.5	1.2	1.3	1.9	.6	(Z)	.5
138	Oil and gas field services	8	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	44	7	.7	5.5	.6	1.3	4.6	15.2	6.6	20.3	1.5	.6	11.0
144	Sand and gravel	16	3	.2	1.4	.2	.3	1.2	3.4	1.2	4.3	.2	.2	2.0
1442	Construction sand and gravel	15	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	12	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	8	3	.2	1.5	.1	.4	1.2	5.4	(D)	6.9	(D)	.2	3.8
1499	Nonmetallic minerals, n.e.c.	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number [1] (1,000)	Payroll [1] (million dollars)	Number [1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	7	-	0.1	0.5	0.1	0.1	0.5	2.5	0.3	2.8	(NA)	0.2	5.1

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Nevada:													
	Establishments.....number..	131	116	42	16	24	2	44	4	40	-	1	29	15
	Employees.....1,000..	2.9	2.8	.5	(D)	(D)	(D)	1.7	.1	1.6	-	(D)	(D)	.1
	Value added in mining..mil.dol..	54.9	55.8	8.9	(D)	(D)	(D)	39.1	1.7	37.4	-	(D)	(D)	-.9
10	Metal mining:													
	Establishments.....number..	72	62	29	13	16	-	21	3	18	-	1	11	10
	Employees.....1,000..	2.1	2.0	.5	(D)	(D)	-	1.1	(D)	(D)	-	(D)	(D)	.1
	Value added in mining..mil.dol..	38.5	39.1	8.4	(D)	(D)	-	25.4	(D)	(D)	-	(D)	(D)	-.6
1011	Iron ores:													
	Establishments.....number..	9	9	8	-	8	-	1	-	1	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	2.9	2.9	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	13	8	3	-	3	-	3	-	3	-	1	1	5
	Employees.....1,000..	(D)	1.3	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	20.4	(D)	-	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	6	5	4	4	-	-	1	1	-	-	-	-	1
	Employees.....1,000..	(D)	.1	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	.4	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	15	12	7	7	-	-	5	1	4	-	-	-	3
	Employees.....1,000..	(D)	.3	(Z)	(Z)	-	-	.3	(D)	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	11.8	(Z)	(Z)	-	-	11.7	(D)	(D)	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number	2	2	2	2	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	10	10	-	-	-	-	-	-	-	-	-	10	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	17	16	5	-	5	-	11	1	10	-	-	-	1
	Employees.....1,000..	(D)	.2	(Z)	-	(Z)	-	.2	(D)	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	1.7	.1	-	.1	-	1.8	(D)	(D)	-	-	-	(D)
13	Oil and gas extraction:													
	Establishments.....number..	15	12	2	-	-	2	-	-	-	-	-	10	3
	Employees.....1,000..	.1	(D)	(D)	-	-	(D)	-	-	-	-	-	.1	(D)
	Value added in mining..mil.dol..	1.2	(D)	(D)	-	-	(D)	-	-	-	-	-	1.4	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	7	4	2	-	-	2	-	-	-	-	-	2	3
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	8	8	-	-	-	-	-	-	-	-	-	8	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	44	42	11	3	8	-	23	1	22	-	-	8	2
	Employees.....1,000..	.7	(D)	(D)	(D)	(D)	-	.6	(D)	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	15.2	(D)	(D)	(D)	(D)	-	13.7	(D)	(D)	-	-	(D)	(D)
142	Crushed and broken stone:													
	Establishments.....number..	5	5	1	-	1	-	4	-	4	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.4	.4	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Nevada--Continued													
144	Sand and gravel:													
	Establishments.....number..	16	16	-	-	-	-	9	-	9	-	-	7	-
	Employees.....1,000..	.2	.2	-	-	-	-	.1	-	.1	-	-	.1	-
	Value added in mining..mil.dol..	3.4	3.4	-	-	-	-	2.3	-	2.3	-	-	1.1	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	1	1	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	12	10	6	-	6	-	4	1	3	-	-	-	2
	Employees.....1,000..	(D)	(Z)	(Z)	-	(Z)	-	(Z)	(D)	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	1.5	.1	-	.1	-	1.4	(D)	(D)	-	-	-	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	8	8	3	2	1	-	5	-	5	-	-	-	-
	Employees.....1,000..	.2	.2	(D)	(D)	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	5.4	5.4	(D)	(D)	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	131	204	Cost of supplies, total.....million dollars..	47.4	36.9
With 0 to 19 employees.....do....	110	186	Supplies used, minerals received for preparation, and purchased machinery.....do....	34.7	(NA)
With 20 to 99 employees.....do....	13	12	Cost of resales.....do....	(Z)	(NA)
With 100 or more employees.....do....	8	6	Purchased fuels consumed.....do....	2.9	(NA)
All employees (average for year).....1,000..	2.9	2.7	Electric energy:		
			Quantity purchased.....million kw.-hrs..	250.9	(NA)
Payroll (all employees), total for year.....million dollars..	22.8	17.3	Cost.....million dollars..	2.8	(NA)
			Generated less sold.....million kw.-hrs..	4.6	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	7.0	2.0
Average for the year.....1,000..	2.4	2.3	Value of shipments and receipts (including resales), total.....do....	87.5	70.8
March.....do....	2.9	(NA)	Value of resales.....do....	.1	(NA)
May.....do....	2.9	(NA)			
August.....do....	2.2	(NA)			
November.....do....	1.7	(NA)	Value added in mining.....do....	54.9	39.6
Man-hours.....millions..	5.2	5.0	Capital expenditures (except land and mineral rights), total.....do....	14.9	5.7
Wages.....million dollars..	18.3	14.4	Mineral development and exploration.....do....	2.8	2.4
			New structures and additions.....do....	5.4	3.3
Supplemental labor cost not included in payroll.....do..	2.6	(NA)	New machinery and equipment.....do....	6.3	
			Used plant and equipment.....do....	.4	
Legally required expenditures, including Social Security contributions.....do..	1.4	(NA)	Mineral development and exploration expenditures, total.....do....	5.4	(NA)
Payments for voluntary programs.....do..	1.2	(NA)	Capitalized.....do....	2.8	2.4
			Expensed.....do....	2.6	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Nevada, total	131	21	2.9	22.8	2.4	5.2	18.3	54.9	47.4	87.5	14.9	2.7	39.6
	COUNTIES[2]													
	Clark county, total	13	2	.1	.9	.1	.2	.7	2.1	.6	2.6	.1	.1	1.9
14	Nonmetallic minerals, except fuels	10	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.7
144	Sand and gravel	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Elko county, total	11	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.2
10	Metal mining	8	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Humboldt county, total	9	4	.3	1.9	.2	.5	1.7	3.2	1.6	4.6	.2	.2	2.0
10	Metal mining	8	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lander county, total	8	1	.3	2.2	.2	.4	1.5	-.6	(D)	3.0	(D)	(Z)	.9
10	Metal mining	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lyon county, total	5	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Nye county, total	19	3	.4	3.1	.4	.8	2.6	6.4	3.4	9.2	.5	.3	5.0
14	Nonmetallic minerals, except fuel	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	White Pine county, total	7	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Nevada, total	131	72	-	-	15	44
0 to 4 employees	69	38	-	-	12	19
5 to 9 employees	23	15	-	-	-	8
10 to 19 employees	18	6	-	-	2	10
20 to 49 employees	9	4	-	-	1	4
50 to 99 employees	4	2	-	-	-	2
100 to 249 employees	6	5	-	-	-	1
250 to 499 employees	2	2	-	-	-	-
Churchill county, total	4	2	-	-	1	1
0 to 19 employees	4	2	-	-	1	1
Clark county, total	13	3	-	-	-	10
0 to 19 employees	11	3	-	-	-	8
20 to 99 employees	2	-	-	-	-	2
Douglas county, total	4	3	-	-	-	1
0 to 19 employees	3	2	-	-	-	1
20 to 99 employees	1	1	-	-	-	-
Elko county, total	11	8	-	-	2	1
0 to 19 employees	10	7	-	-	2	1
100 to 249 employees	1	1	-	-	-	-
Esmeralda county, total	3	2	-	-	-	1
0 to 19 employees	3	2	-	-	-	1
Eureka county, total	6	4	-	-	-	2
0 to 19 employees	6	4	-	-	-	2
Humboldt county, total	9	8	-	-	-	1
0 to 19 employees	5	4	-	-	-	1
20 to 99 employees	3	3	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Lander county, total	8	4	-	-	1	3
0 to 19 employees	7	3	-	-	1	3
100 to 249 employees	1	1	-	-	-	-
Lincoln county, total	8	6	-	-	-	2
0 to 19 employees	7	6	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Lyon county, total	5	3	-	-	-	2
0 to 19 employees	3	1	-	-	-	2
20 to 99 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-
Mineral county, total	7	6	-	-	-	1
0 to 19 employees	5	5	-	-	-	-
20 to 99 employees	2	1	-	-	-	1
Nye county, total	19	8	-	-	7	4
0 to 19 employees	16	7	-	-	6	3
20 to 99 employees	2	1	-	-	1	-
100 to 249 employees	1	-	-	-	-	1
Ormsby county, total	5	3	-	-	-	2
0 to 19 employees	5	3	-	-	-	2
Pershing county, total	16	14	-	-	-	2
0 to 19 employees	15	14	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Storey county, total	2	1	-	-	-	1
0 to 19 employees	1	1	-	-	-	-
20 to 99 employees	1	-	-	-	-	1
Washoe county, total	20	9	-	-	2	9
0 to 19 employees	20	9	-	-	2	9
White Pine county, total	7	4	-	-	2	1
0 to 19 employees	5	2	-	-	2	1
100 to 249 employees	1	1	-	-	-	-
250 employees and over	1	1	-	-	-	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

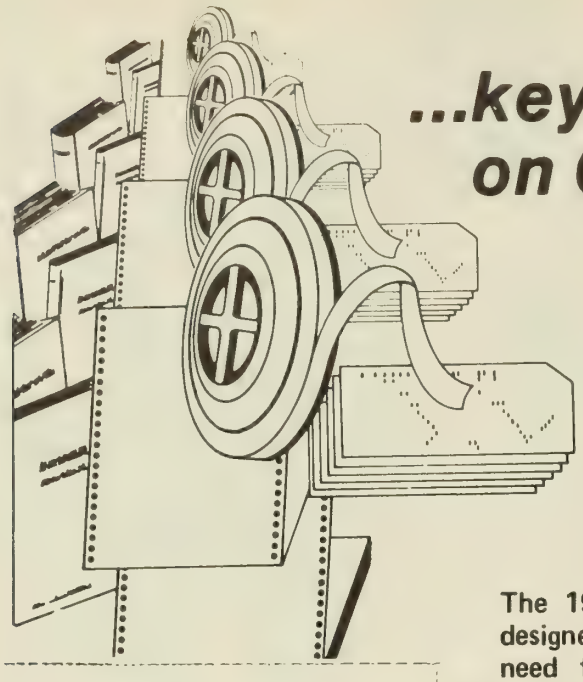
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM

WITH PAYMENT TO

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-875

1967 CENSUS OF Mineral Industries



MIC67(2)-28

AREA STATISTICS

NEW HAMPSHIRE

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	5
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	6
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

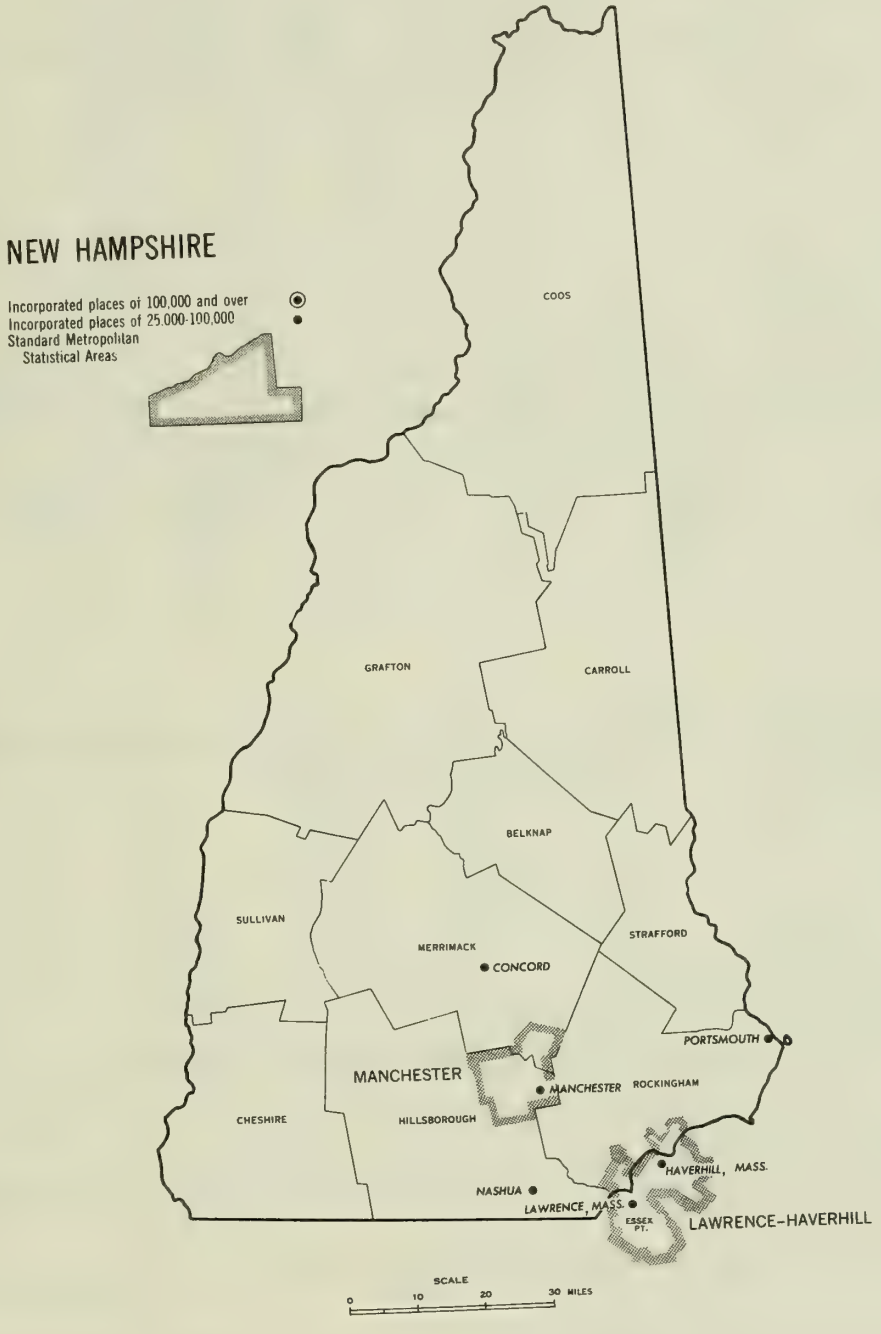
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]26	3	.2	1.4	.2	.4	1.1	3.3
1963	[1]32	3	.2	1.2	.2	.4	.9	2.2
1958	38	3	.2	1.0	.2	.4	.7	2.0
1954	39	3	.3	.9	.2	.5	.7	1.7
Including operations in manufactures:								
1967	29	4	(D)	(D)	(D)	(D)	(D)	(D)
1963	39	4	(D)	(D)	(D)	(D)	(D)	(D)
1958	45	4	.3	1.5	.3	.6	1.2	2.8
1954[2]	44	4	.3	1.1	.3	.6	.9	1.9
1939[3]	[4]25	(NA)	.3	.4	.3	.5	.3	.8
1929[5]	36	(NA)	.6	.9	.6	(NA)	.8	1.3
1919[6]	30	(NA)	.7	.9	.7	(NA)	.8	1.3
1909[6]	46	(NA)	1.5	1.0	1.4	(NA)	.9	1.1
1902[7]	[4]56	(NA)	1.3	.9	[8]1.3	(NA)	.8	1.0

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]1.3	([10])	.3	([10])	4.2	.8	(NA)
1963	.9	-	.2	.3	3.1	.5	(Z)
1958	.6	.1	.2	.2	2.9	.2	(Z)
1954	.3	.5	.1	.2	2.0	.3	(Z)
Including operations in manufactures:							
1967	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1963	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1958	[11].8	.1	[11].2	[12].2	3.9	[12].2	[12](Z)
1954[2]	[11].6	.1	[11].1	[12].2	2.5	[12].3	[12](Z)
1939[3]	.1	(NA)	-	(NA)	.9	(NA)	(Z)
1929[5]	.3	(NA)	(Z)	(Z)	1.6	(NA)	.1
1919[6]	.2	(NA)	(Z)	(NA)	1.6	(NA)	[13](Z)
1909[6]	.2	-	(Z)	(NA)	1.3	(NA)	(NA)
1902[7]	.1	-	-	(NA)	1.2	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Represents less than one-half of the unit of measure specified.

[1]In 1967, for the first time, data for single unit establishments without paid employees were excluded from the census. In 1963, there was 1 single unit establishment without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[3]Except for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing stone at such operations was $250 thousand; this value has been included in the value of shipments and value added in mining. Except for number of mines and quarries, includes data for one diatomite mine in Massachusetts.

[4]Represents number of mines and quarries.

[5]Excludes data for common clay and shale operations. There were 3 such mines in 1939, with products valued at $11 thousand.

[6]Excludes data for sand and gravel operations. There were 4 such establishments in 1929, with products valued at less than $387 thousand. See also footnote 5.

[7]Excludes data for one nonproducing operation. See also footnote 6.

[8]Figures for average employment were converted to a 300-day basis for establishments, which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments and for dimension stone operations in manufactures in 1958, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, and for 1958, for dimension stone operations in manufactures.

[13]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 6 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]....	26	3	.2	1.4	.2	.4	1.1	3.3	1.6	4.2	.8	.2	2.2
14	Nonmetallic minerals, except fuels.....	26	3	.2	1.4	.2	.4	1.1	3.3	1.6	4.2	.8	.2	2.2
144	Sand and gravel.....	20	2	.2	.9	.1	.3	.7	2.2	.9	2.6	.5	.2	1.2
1442	Construction sand and gravel.....	20	2	.2	.9	.1	.3	.7	2.2	.9	2.6	.5	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels.....	3	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New Hampshire:													
	Establishments.....number..	26	26	4	-	4	-	11	-	10	1	1	10	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	.1	-	(D)	(D)	(D)	.1	-
	Value added in mining..mil.dol..	3.3	3.3	(D)	-	(D)	-	1.6	-	(D)	(D)	(D)	1.3	-
14	Nonmetallic minerals,except fuels:													
	Establishments.....number ..	26	26	4	-	4	-	11	-	10	1	1	10	-
	Employees.....1,000 ..	.2	.2	(D)	-	(D)	-	.1	-	(D)	(D)	(D)	.1	-
	Value added in mining..mil.dol..	3.3	3.3	(D)	-	(D)	-	1.6	-	(D)	(D)	(D)	1.3	-
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000 ..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	4	4	-	-	-	-	4	-	3	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
144	Sand and gravel:													
	Establishments.....number..	20	20	2	-	2	-	7	-	7	-	1	10	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	(D)	-	(D)	-	(D)	.1	-
	Value added in mining..mil.dol..	2.2	2.2	(D)	-	(D)	-	(D)	-	(D)	-	(D)	1.3	-
145	Clay and related materials:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	26	32	Cost of supplies, total.....million dollars..	1.6	1.4
With 0 to 19 employees.....do....	23	29	Supplies used, minerals received for preparation, and purchased machinery.....do....	1.0	(NA)
With 20 to 99 employees.....do....	3	3	Cost of resales.....do....	.1	(NA)
With 100 or more employees.....do....	-	-	Purchased fuels consumed.....do....	.1	(NA)
All employees (average for year).....1,000..	.2	.2	Electric energy:		
			Quantity purchased.....million kw.-hrs..	5.7	(NA)
Payroll (all employees), total for year.....million dollars..	1.4	1.2	Cost.....million dollars..	.1	(NA)
			Generated less sold.....million kw.-hrs..	-	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	.3	(NA)
Average for the year.....1,000..	.2	.2	Value of shipments and receipts (including resales), total.....do....	4.2	3.1
March.....do....	.2	(NA)	Value of resales.....do....	.1	(NA)
May.....do....	.2	(NA)			
August.....do....	.2	(NA)	Value added in mining.....do....	3.3	2.2
November.....do....	.2	(NA)			
			Capital expenditures (except land and mineral rights), total.....do....	.8	.5
Man-hours.....millions..	.4	.4	Mineral development and exploration.....do....	(Z)	(Z)
			New structures and additions.....do....	.1	.5
Wages.....million dollars..	1.1	.9	New machinery and equipment.....do....	.6	
			Used plant and equipment.....do....	.1	
Supplemental labor cost not included in payroll.....do..	.1	(NA)			
			Mineral development and exploration expenditures, total.....do....	(Z)	(NA)
Legally required expenditures, including Social Security contributions.....do..	.1	(NA)	Capitalized.....do....	(Z)	(Z)
Payments for voluntary programs.....do..	(Z)	(NA)	Expensed.....do....	(Z)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	New Hampshire, Total.....	26	3	.2	1.4	.2	.4	1.1	3.3	1.6	4.2	.8	.2	2.2
	COUNTIES (County data not shown for this table because of disclosure problems.)													

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New Hampshire, total	26	-	-	-	-	26
1 to 4 employees	10	-	-	-	-	10
5 to 9 employees	8	-	-	-	-	8
10 to 19 employees	5	-	-	-	-	5
20 to 49 employees	3	-	-	-	-	3
Belknap County, total	1	-	-	-	-	1
1 to 19 employees	1	-	-	-	-	1
Cheshire County, total	1	-	-	-	-	1
1 to 19 employees	1	-	-	-	-	1
Coos County, total	1	-	-	-	-	1
1 to 19 employees	1	-	-	-	-	1
Grafton County, total	7	-	-	-	-	7
1 to 19 employees	7	-	-	-	-	7
Hillsborough County, total	8	-	-	-	-	8
1 to 19 employees	7	-	-	-	-	7
20 to 99 employees	1	-	-	-	-	1
Merrimack County, total	2	-	-	-	-	2
1 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Rockingham County, total	2	-	-	-	-	2
1 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Strafford County, total	2	-	-	-	-	2
1 to 19 employees	2	-	-	-	-	2
Sullivan County, total	2	-	-	-	-	2
1 to 19 employees	2	-	-	-	-	2

Standard Notes: - Represents zero.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

1967 CENSUS OF Mineral Industries



MIC67(2)-29

AREA STATISTICS

NEW JERSEY

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]138	45	2.9	22.1	2.1	4.6	13.6	50.6
1963	[1]157	47	3.8	23.8	2.9	6.4	16.6	55.2
1958	135	42	3.7	19.5	2.8	5.6	13.4	37.6
1954	153	41	4.1	18.5	3.5	7.8	14.9	[2]38.6
Including operations in manufactures:								
1967	147	45	2.9	22.3	2.1	4.7	13.8	51.3
1963	182	49	4.1	25.4	3.2	7.0	18.1	59.4
1958	150	44	3.9	20.0	2.9	5.8	13.8	40.7
1954[3]	166	41	4.2	18.8	3.5	7.9	15.2	[2]39.0
1939[4]	[5]137	(NA)	4.0	5.9	3.4	6.5	4.3	11.1
1929[6]	117	(NA)	4.2	6.9	3.6	(NA)	5.4	12.5
Excluding sand, gravel, common clay, and shale operations:								
1967	54	21	(D)	(D)	(D)	(D)	(D)	(D)
1929	65	(NA)	3.3	5.4	2.9	(NA)	4.3	8.8
1919	97	(NA)	5.0	6.1	4.6	(NA)	5.4	6.3
1909	133	(NA)	6.6	3.1	6.3	(NA)	2.8	7.3
1902[7]	[5]165	(NA)	6.4	3.3	[8]6.0	(NA)	2.8	4.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]23.9	([10])	2.0	([10])	70.1	6.4	(NA)
1963	18.8	.6	.7	5.1	72.4	8.2	1.0
1958	11.7	.1	.8	2.3	48.7	3.9	.7
1954	11.0	.5	1.3	3.5	[2]50.9	4.0	.7
Including operations in manufactures:							
1967	[11]26.0	([11])	([11])	([11])	70.9	(NA)	(NA)
1963	[12]19.6	.6	[12].7	[13]5.1	77.3	[13]8.2	[13]1.0
1958	[12]12.0	.1	[12].8	[13]2.3	50.0	[13]3.9	[13].7
1954[3]	[12]11.3	.5	[12]1.3	[13]3.5	[2]51.5	[13]4.0	[13].7
1939[4]	2.9	(NA)	.1	(NA)	14.1	(NA)	.7
1929[6]	3.1	(NA)	.1	823	15.8	(NA)	.9
Excluding sand, gravel, common clay, and shale operations:							
1967	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1929	2.2	(NA)	.1	.5	11.1	(NA)	.7
1919	2.9	-	.1	(NA)	9.3	(NA)	[14]1.0
1909	1.0	-	(Z)	(NA)	8.3	(NA)	(NA)
1902[7]	2.2	(NA)	(Z)	(NA)	6.6	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 8 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes figures for the Uranium-Radium-Vanadium Ores Industry. No data on value of shipments and cost of ores received for milling were obtained for this industry for 1954.

[3] Excludes figures for sand and gravel mining operations in manufacturing establishments.

[4] Except for number of mines, excludes data for nonproducing operation as follows: 1 iron ore mine and 1 trap rock quarry and crushing plant. Also excludes figures for dimension stone dressing plants operated in conjunction with quarries, if any.

[5] Represents number of mines and quarries.

[6] Excludes figures for common clay and shale and peat operations. There were 12 common clay and shale mines in 1939 with products valued at $202 thousand.

[7] Includes figures for lime plants producing lime valued at $123 thousand. Also includes data for 2 cement plants.

[8] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9] For sand and gravel and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contain some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For years prior to 1958, the figures represent net production and exclude this duplication.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--New Jersey--Continued

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.
[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.
[12]For stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.
[13]Excludes figures for stone, sand and gravel, and clay mining operations in manufacturing establishments.
[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 2 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	130	45	2.9	22.1	2.1	4.6	13.6	50.6	25.9	70.1	6.4	3.8	55.2
10	Metal mining	4	3	.3	1.8	.2	.5	1.3	3.8	4.7	8.2	.3	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1093	Titanium ores	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	126	42	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.0	46.0
142	Crushed and broken stone	25	18	1.1	9.3	.8	1.9	5.9	24.1	(D)	31.1	(D)	1.5	25.2
1422	Crushed and broken limestone	7	5	.2	1.6	.1	.3	.8	3.0	1.3	3.9	.4	.3	4.0
1423	Crushed and broken granite	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
1429	Crushed and broken stone, n.e.c.	15	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.2	19.9
144	Sand and gravel	86	20	1.2	8.7	1.0	2.1	6.1	21.9	11.7	29.5	4.1	1.4	19.8
1442	Construction sand and gravel	69	10	.7	4.7	.6	1.2	3.4	12.8	5.4	16.4	1.9	(NA)	(NA)
1443	Glass sand	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1444	Molding sand	10	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1455	Kaolin and ball clay	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All[1] employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll[1]	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	9	-	(Z)	0.2	(Z)	0.1	0.2	0.7	0.1	0.8	(NA)	0.3	4.2

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New Jersey:													
	Establishments.....number..	138	135	19	-	19	-	69	2	61	6	5	42	3
	Employees.....1,000..	2.9	(D)	(D)	-	(D)	-	2.3	(D)	2.0	(D)	(D)	.4	(D)
	Value added in mining..mil.dol..	50.6	(D)	(D)	-	(D)	-	45.7	(D)	41.6	(D)	(D)	1.4	(D)
10	Metal mining:													
	Establishments.....number..	4	4	-	-	-	-	2	1	1	-	2	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	(D)	-	-
1011	Iron ores:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
103	Lead and zinc ores:													
	Establishments.....number..	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
109	Miscellaneous metal ores:													
	Establishments.....number..	2	2	-	-	-	-	1	-	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	(D)	-	-
13	Oil and gas extraction:													
	Establishments.....number..	8	7	-	-	-	-	-	-	-	-	-	7	1
	Employees.....1,000..	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	-.2	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	126	124	19	-	19	-	67	1	60	6	3	35	2
	Employees.....1,000..	(D)	2.6	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	47.0	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	25	25	-	-	-	-	21	1	20	-	-	4	-
	Employees.....1,000..	1.1	1.1	-	-	-	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	24.1	24.1	-	-	-	-	(D)	(D)	(D)	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	86	85	12	-	12	-	43	-	37	6	3	27	1
	Employees.....1,000..	1.2	(D)	(D)	-	(D)	-	1.0	-	(D)	(D)	(D)	.1	(D)
	Value added in mining..mil.dol..	21.9	(D)	(D)	-	(D)	-	18.4	-	(D)	(D)	(D)	1.0	(D)
145	Clay and related minerals:													
	Establishments.....number..	8	7	3	-	3	-	1	-	1	-	-	3	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	5	5	3	-	3	-	2	-	2	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.4	.4	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	138	157	Cost of supplies, total.....million dollars..	25.9	25.3
With 0 to 19 employees.....do....	93	110	Supplies used, minerals received for preparation, and purchased machinery.....do....	20.0	(NA)
With 20 to 99 employees.....do....	42	41	Cost of resales.....do....	.2	(NA)
With 100 or more employees.....do....	3	6	Purchased fuels consumed.....do....	1.7	(NA)
All employees (average for year).....1,000..	2.9	3.8	Electric energy:		
Payroll (all employees), total for year.....million dollars..	22.1	23.8	Quantity purchased.....million kw.-hrs..	129.2	(NA)
			Cost.....million dollars..	2.0	(NA)
			Generated less sold.....million kw.-hrs..	.7	(NA)
			Contract work.....million dollars..	2.0	.7
Production, development, and exploration workers:					
Average for the year.....1,000..	2.1	2.9	Value of shipments and receipts (including resales), total.....do....	70.1	72.4
March.....do....	1.9	(NA)	Value of resales.....do....	.3	(NA)
May.....do....	2.1	(NA)			
August.....do....	2.2	(NA)	Value added in mining.....do....	50.6	55.2
November.....do....	2.0	(NA)			
Man-hours.....millions..	4.6	6.4	Capital expenditures (except land and mineral rights), total.....do....	6.4	8.2
Wages.....million dollars..	13.6	16.6	Mineral development and exploration.....do....	.1	.4
			New structures and additions.....do....	.9	7.8
Supplemental labor cost not included in payroll.....do..	2.0	(NA)	New machinery and equipment.....do....	5.1	
			Used plant and equipment.....do....	.2	
Legally required expenditures, including Social Security contributions.....do..	1.1	(NA)	Mineral development and exploration expenditures, total.....do....	.5	(NA)
Payments for voluntary programs.....do..	.9	(NA)	Capitalized.....do....	.1	.4
			Expensed.....do....	.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	New Jersey, total	138	45	2.9	22.1	2.1	4.6	13.6	50.6	25.9	70.1	6.4	3.8	55.2
	COUNTIES[2]													
	Camden county	9	2	.1	.6	.1	.2	.5	2.2	4.5	5.9	.8	.1	1.6
	Cumberland county, total	14	7	.5	3.1	.4	.8	2.3	8.0	5.8	11.7	2.1	.5	7.5
14	Nonmetallic minerals, except fuel	14	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	7.5
144	Sand and gravel	14	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Middlesex county, total	13	5	.3	2.3	.1	.2	.5	1.3	.5	1.7	.1	.3	1.1
14	Nonmetallic minerals, except fuel	12	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	5	3	.2	1.8	(Z)	.1	.2	.3	.1	.3	(Z)	(D)	(D)
	Morris county, total	12	3	.2	1.9	.1	.3	.9	3.8	1.2	4.8	.2	.5	8.9
14	Nonmetallic minerals, except fuel	10	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	8	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.3
	Ocean county	10	2	.1	.9	.1	.2	.6	2.1	1.3	3.1	.3	.3	4.0
	Passaic county, total	9	5	.2	1.9	.2	.3	1.2	4.1	1.4	5.0	.4	.2	2.7
14	Nonmetallic minerals, except fuel	9	5	.2	1.9	.2	.3	1.2	4.1	1.4	5.0	.4	(D)	(D)
142	Crushed and broken stone	6	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Somerset county, total	5	4	.5	4.4	.4	1.0	2.7	13.4	5.0	17.7	.7	.5	12.7
14	Nonmetallic minerals, except fuel	5	4	.5	4.4	.4	1.0	2.7	13.4	5.0	17.7	.7	(D)	(D)
142	Crushed and broken stone	5	4	.5	4.4	.4	1.0	2.7	13.4	5.0	17.7	.7	(D)	(D)
	Sussex county, total	10	5	.4	2.6	.3	.7	1.7	4.9	1.9	6.3	.4	.6	7.4
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	1.0	.2	.3	.8	1.8	.4	2.2	(Z)	(D)	(D)
14	Nonmetallic minerals, except fuel	9	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New Jersey, total	138	4	-	-	8	126
0 to 4 employees	47	1	-	-	8	38
5 to 9 employees	21	-	-	-	-	21
10 to 19 employees	25	-	-	-	-	25
20 to 49 employees	30	1	-	-	-	29
50 to 99 employees	12	1	-	-	-	11
100 to 249 employees	3	1	-	-	-	2
Atlantic county, total	12	-	-	-	1	11
0 to 19 employees	11	-	-	-	1	10
20 to 99 employees	1	-	-	-	-	1
Bergen county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
Burlington county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Camden county, total	9	1	-	-	-	8
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	2	1	-	-	-	1
Cape May county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cumberland county, total	14	-	-	-	-	14
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	7	-	-	-	-	7
Essex county, total	5	-	-	-	1	4
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	2	-	-	-	-	2
Gloucester county, total	7	-	-	-	1	6
0 to 19 employees	7	-	-	-	1	6
Hudson county, total	1	-	-	-	-	1
0 to 19 employees	-	-	-	-	-	-
20 to 99 employees	1	-	-	-	-	1
Hunterdon county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
Mercer county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Middlesex county, total	12	-	-	-	1	11
0 to 19 employees	7	-	-	-	1	6
20 to 99 employees	5	-	-	-	-	5
Monmouth county, total	8	-	-	-	1	7
0 to 19 employees	7	-	-	-	1	6
20 to 99 employees	1	-	-	-	-	1
Morris county, total	13	1	-	-	1	11
0 to 19 employees	10	1	-	-	1	8
20 to 99 employees	3	-	-	-	-	3
Ocean county, total	10	1	-	-	-	9
0 to 19 employees	8	-	-	-	-	8
20 to 99 employees	2	1	-	-	-	1
Passaic county, total	9	-	-	-	-	9
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	5	-	-	-	-	5
Somerset county, total	5	-	-	-	-	5
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	2	-	-	-	-	2
Sussex county, total	10	1	-	-	-	9
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	1	-	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New Jersey--Continued						
Union county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Warren county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Offshore	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 413-880

1967 CENSUS OF Mineral Industries



MIC67(2)-30

AREA STATISTICS

NEW MEXICO

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	8
5	General Statistics by County and Industry Groups: 1967 and 1963	9
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	11
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

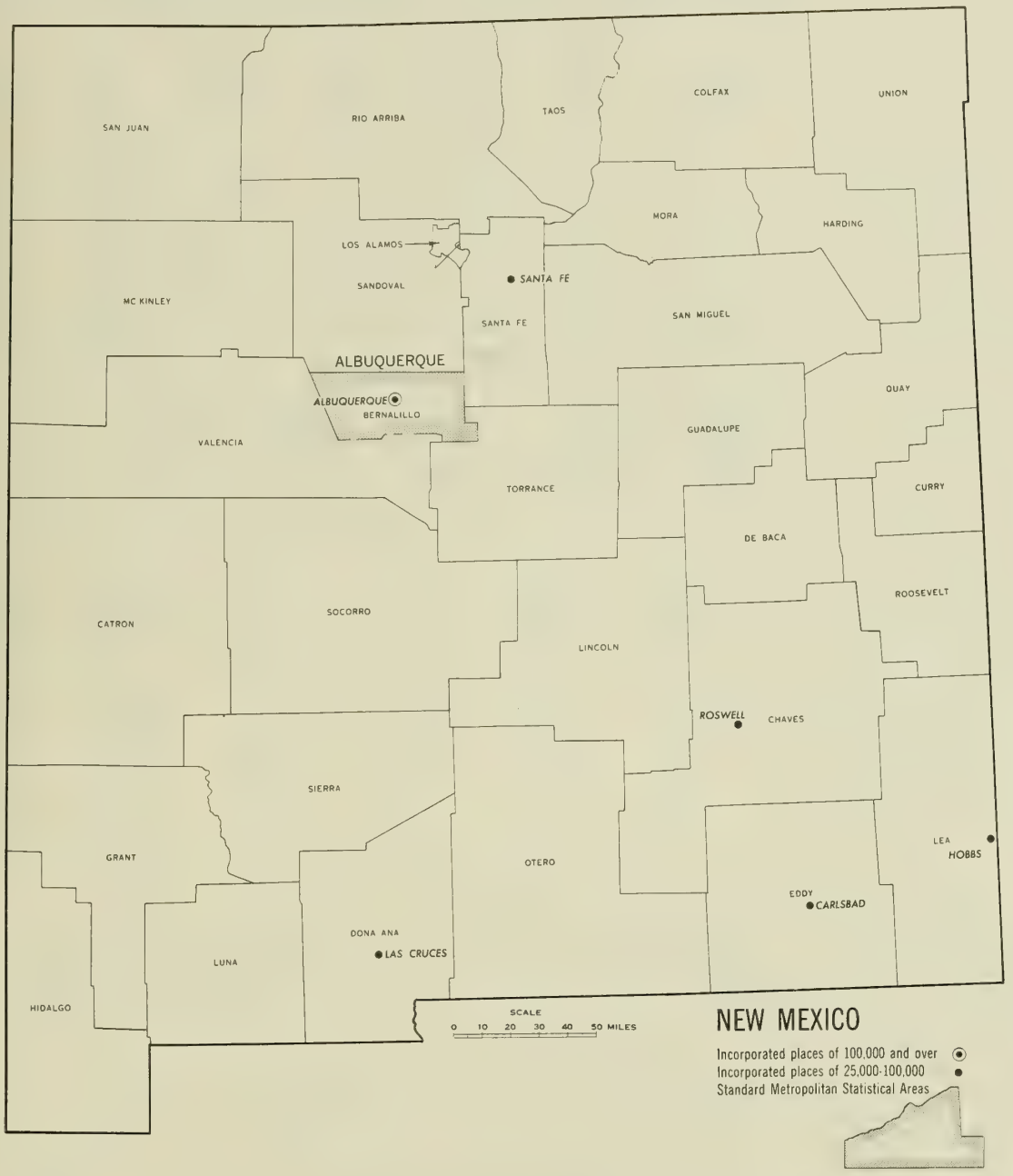
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]690	156	16.6	120.7	13.0	26.6	90.2	718.8
1963	[2]865	[2]149	17.6	114.6	13.8	28.0	85.4	649.6
1958	761	142	17.5	97.2	13.5	28.1	70.1	532.0
1954	691	119	13.9	65.8	11.5	23.6	51.3	[3]338.1
Including operations in manufactures:								
1967	700	.57	16.7	121.1	13.1	26.7	90.6	719.9
1963	[2]881	[2]151	17.3	115.3	13.1	28.2	86.1	653.2
1958	770	142	17.6	97.5	13.6	28.2	70.4	534.1
1954 [4]	693	119	13.9	65.8	11.5	23.6	51.3	[3]338.1
1939 [5]	[6]286	(NA)	8.9	12.7	8.1	14.8	10.6	44.7
1929 [7]	93	(NA)	7.6	11.6	7.1	(NA)	10.3	20.9
1919 [8]	103	(NA)	7.7	11.9	7.2	(NA)	10.7	13.4
1909 [8]	154	(NA)	5.8	4.3	5.4	(NA)	3.8	4.2
1902 [8]	[6]320	(NA)	2.9	2.2	[9]2.6	(NA)	1.9	1.9

Kind of operation and year	Selected expenses				Value of shipments and receipts[11] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation[10] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:		([12])		([12])			
1967	[12]403.1	134.8	74.4	39.2	1,034.4	161.9	(NA)
1963	118.9	134.8	84.8	39.2	876.9	150.4	22.5
1958	119.8	89.9	139.3	47.8	704.6	224.2	19.4
1954	67.9	5.8	72.6	41.0	[3]403.3	121.7	12.4
Including operations in manufactures:							
1967	[13]477.9	([13])	([13])	([13])	1,036.6	(NA)	(NA)
1963	[14]119.5	134.8	[14]84.8	[15]39.2	881.1	[15]150.4	[15]22.5
1958	[14]120.1	89.9	[14]139.3	[15]47.8	707.1	[15]224.2	[15]19.4
1954 [3]	[14]67.9	5.8	[14]72.6	[15]41.0	[3]403.3	[15]121.7	[15]12.4
1939 [4]	7.0	(NA)	7.5	(NA)	59.2	(NA)	9.2
1929 [6]	6.1	(NA)	.1	1.2	27.1	(NA)	1.9
1919 [7]	5.4	(Z)	.1	(NA)	18.9	(NA)	[16]1.9
1909 [7]	1.2	-	.2	(NA)	5.6	(NA)	(NA)
1902 [7]	.6	(NA)	.1	(NA)	2.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 104 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Figures for number of establishments in 1963 are not entirely comparable with those for earlier years. For 1963, operators of oil and gas field properties were asked to make separate reports by districts for East and West New Mexico, whereas only one report was required for the State in previous years.

[3]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[4]Except for number of establishments, excludes data for 2 operations in manufacturing establishments.

[5]Includes data for 4 or less service establishments engaged in oil and gas field machine shop work. Such establishments were not classified in the mineral industries in 1954 and 1958.

[6]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas mining services industries, number of operating companies.

[7]Excludes the oil and gas extraction industries; in 1939, there were about 179 operations reported in these industries with value of shipments and receipts amounting to about $37,649 thousand, but only one establishment was reported in these industries in 1919. Also, excludes common clay and shale operations; there were 4 such operations in 1939, with products valued at $422 thousand.

[8]Excludes data for sand, gravel, common clay, and shale operations. For 1929, only one producing sand and gravel establishment was reported.

[9]Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

[10]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants, but for 1954, includes the estimate value prior to processing of natural gas liquids contained in such gas.

[11]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, the figures represent net production and exclude this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1. New Mexico--Continued

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments and for 1963 for dimension stone mines in manufacturing establishments, cost of contract work is included with cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, and for 1963, excludes data for dimension stone mines in manufacturing establishments.

[16]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 0.9 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	690	156	16.6	120.7	13.0	26.6	90.2	718.8	477.5	1,034.4	161.9	17.6	649.6
10	Metal mining	54	23	4.0	30.6	3.3	6.7	23.9	86.9	94.6	152.9	28.6	4.2	(NA)
1021	Copper ores	12	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	8	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium	4	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1069	Ferroalloy ores, n.e.c.	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	7	5	.3	2.8	.3	.6	2.6	4.4	1.6	5.8	.2	(D)	(D)
109	Miscellaneous metal ores	18	7	2.2	17.0	1.7	3.5	12.5	56.8	40.3	89.2	7.9	(D)	(D)
1094	Uranium-radium-vanadium ores	16	7	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.4	72.3
12	Bituminous coal and lignite mining	13	3	.3	2.7	.3	.6	2.3	11.3	3.0	12.8	1.5	.3	(NA)
121	Bituminous coal and lignite mining	13	3	.3	2.7	.3	.6	2.3	11.3	3.0	12.8	1.5	(D)	(D)
1211	Bituminous coal	12	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	567	118	8.3	56.3	6.6	13.5	41.6	546.8	344.2	764.1	126.8	9.0	448.2
131	Crude petroleum and natural gas	264	31	3.3	23.7	2.1	4.1	13.4	447.3	124.0	470.3	101.0	4.2	376.3
1312	Crude petroleum	198	29	2.2	16.7	1.4	2.8	8.9	359.9	101.5	386.4	75.1	2.9	322.1
1313	Natural gas	66	2	1.1	7.0	.7	1.4	4.5	87.4	22.5	83.9	25.9	1.3	54.1
1321	Natural gas liquids	36	20	.9	7.3	.8	1.7	6.6	41.3	191.9	214.5	18.7	.8	31.3
138	Oil and gas field services	267	67	4.1	25.3	3.7	7.7	21.6	58.2	28.2	79.3	7.1	4.0	40.6
1381	Drilling oil and gas wells	70	27	1.4	9.5	1.3	2.8	8.6	19.0	13.8	30.2	2.6	2.2	26.3
1382	Oil and gas exploration services	19	2	.3	1.8	.3	.6	1.5	5.0	2.1	6.2	.9	.2	1.3
1389	Oil and gas field services, n.e.c.	178	38	2.4	13.9	2.1	4.3	11.4	34.3	12.3	43.0	3.6	1.6	13.0
14	Nonmetallic minerals, except fuels	56	12	3.9	31.0	2.9	5.9	22.5	73.8	35.7	104.6	4.8	4.2	89.2
144	Sand and gravel	24	1	.1	.5	.1	.2	.4	1.4	.6	1.8	.2	.3	3.4
1442	Construction sand and gravel	24	1	.1	.5	.1	.2	.4	1.4	.6	1.8	.2	(D)	(D)
147	Chemical and fertilizer minerals	12	9	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1474	Potash, soda, and borate minerals	8	8	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	14	2	.1	.7	.1	.2	.6	3.8	.9	4.4	.3	.1	2.0
1499	Nonmetallic minerals, n.e.c.	5	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	10	1	0.1	0.4	0.1	0.1	0.4	1.8	0.4	2.2	(NA)	0.1	3.7
144	Sand and gravel	4	1	(Z)	0.2	(Z)	0.1	0.2	0.6	0.3	0.9	(NA)	0.1	2.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New Mexico:													
	Establishments.....number..	690	681	259	29	15	215	43	12	28	3	38	341	9
	Employees.....1,000..	16.6	16.4	3.9	.6	.5	2.9	6.3	(D)	1.0	(D)	1.3	4.9	.1
	Value added in mining..mil.dol..	718.8	733.0	475.0	15.0	17.6	442.4	143.6	(D)	33.7	(D)	45.8	68.6	-14.3
10	Metal mining:													
	Establishments.....number..	54	49	30	20	10	-	9	4	3	2	2	8	5
	Employees.....1,000..	4.0	3.9	.8	.4	.5	-	2.4	(D)	(D)	(D)	(D)	(D)	.1
	Value added in mining..mil.dol..	86.9	100.9	26.2	8.8	17.3	-	66.2	(D)	(D)	(D)	(D)	(D)	-14.0
101	Iron ores:													
	Establishments.....number..	2	2	-	-	-	-	2	-	1	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
102	Copper ores:													
	Establishments.....number..	12	10	8	1	7	-	1	-	-	1	1	-	2
	Employees.....1,000..	(D)	(D)	.4	(D)	(D)	-	(D)	-	-	(D)	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	17.1	(D)	(D)	-	(D)	-	-	(D)	(D)	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	8	7	6	6	-	-	1	1	-	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	3	2	2	2	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	4	4	2	1	1	-	2	1	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	.3	.3	-	-	-	-	-	-	-	-	-	.3	-
	Value added in mining..mil.dol..	4.4	4.4	-	-	-	-	-	-	-	-	-	4.4	-
109	Miscellaneous metal ores:													
	Establishments.....number..	18	17	12	10	2	-	3	2	1	-	1	1	1
	Employees.....1,000..	2.2	(D)	.3	(D)	(D)	-	(D)	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	56.8	(D)	8.3	(D)	(D)	-	(D)	(D)	(D)	-	(D)	(D)	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	13	13	8	8	-	-	4	1	3	-	-	1	-
	Employees.....1,000..	.3	.3	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	11.3	11.3	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	13	13	8	8	-	-	4	1	3	-	-	1	-
	Employees.....1,000..	.3	.3	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	11.3	11.3	(D)	(D)	-	-	(D)	(D)	(D)	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	567	564	215	-	-	215	-	-	-	-	35	314	3
	Employees.....1,000..	8.3	(D)	2.9	-	-	2.9	-	-	-	-	(D)	4.5	(D)
	Value added in mining..mil.dol..	544.3	(D)	442.4	-	-	442.4	-	-	-	-	(D)	63.4	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	264	261	215	-	-	215	-	-	-	-	-	46	3
	Employees.....1,000..	3.3	(D)	2.9	-	-	2.9	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	447.3	(D)	442.4	-	-	442.4	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	36	36	-	-	-	-	-	-	-	-	35	1	-
	Employees.....1,000..	.9	.9	-	-	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	41.3	41.3	-	-	-	-	-	-	-	-	(D)	(D)	-
138	Oil and gas field services:													
	Establishments.....number..	267	267	-	-	-	-	-	-	-	-	-	267	-
	Employees.....1,000..	4.1	4.1	-	-	-	-	-	-	-	-	-	4.1	-
	Value added in mining..mil.dol..	58.2	58.2	-	-	-	-	-	-	-	-	-	58.2	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New Mexico--Continued													
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	56	55	6	1	5	-	30	7	22	1	1	18	1
	Employees.....1,000..	3.9	(D)	(D)	(D)	(Z)	-	3.6	(D)	.1	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	73.8	(D)	(D)	(D)	.3	-	66.4	(D)	4.3	(D)	(D)	(D)	(D)
142	Crushed and broken stone:													
	Establishments.....number..	5	4	-	-	-	-	4	-	4	-	-	-	1
	Employees.....1,000..	(Z)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	.1	(D)	-	-	-	-	(D)	-	(D)	-	-	-	(D)
144	Sand and gravel:													
	Establishments.....number..	24	24	1	-	1	-	6	-	5	1	-	17	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(Z)	-	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	1.4	1.4	(D)	-	(D)	-	.7	-	(D)	(D)	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	12	12	4	1	3	-	7	7	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	.2	(D)	(D)	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	6.3	(D)	(D)	-	(D)	(D)	-	-	(D)	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	14	14	1	-	1	-	13	-	13	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	3.8	3.8	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	690	865	Cost of supplies, total.....million dollars..	477.5	377.8
With 0 to 19 employees.....do....	534	716	Supplies used, minerals received for preparation, and purchased machinery.....do....	379.9	(NA)
With 20 to 99 employees.....do....	124	117	Cost of resales.....do....	.7	(NA)
With 100 or more employees.....do....	32	32	Purchased fuels consumed.....do....	11.4	(NA)
All employees (average for year).....1,000..	16.6	17.6	Electric energy:		
Payroll (all employees), total for year.....million dollars..	120.7	114.6	Quantity purchased.....million kw.-hrs..	944.7	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	11.1	(NA)
Average for the year.....1,000..	13.0	13.8	Generated less sold.....million kw.-hrs..	456.1	(NA)
March.....do....	13.4	(NA)	Contract work.....million dollars..	74.4	84.8
May.....do....	13.5	(NA)	Value of shipments and receipts (including resales), total.....do....	1,034.4	876.9
August.....do....	13.1	(NA)	Value of resales.....do....	.9	
November.....do....	12.2	(NA)	Value added in mining.....do....	718.8	649.6
Man-hours.....millions..	26.6	28.0	Capital expenditures (except land and mineral rights), total.....do....	161.9	150.4
Wages.....million dollars..	90.2	85.4	Mineral development and exploration.....do....	66.9	67.7
Supplemental labor cost not included in payroll.....do..	13.5	(NA)	New structures and additions.....do....	22.3	82.7
Legally required expenditures, including Social Security contributions.....do..	6.7	(NA)	New machinery and equipment.....do....	69.4	
Payments for voluntary programs.....do..	6.8	(NA)	Used plant and equipment.....do....	3.3	
			Mineral development and exploration expenditures, total.....do....	83.9	(NA)
			Capitalized.....do....	66.9	67.7
			Expensed.....do....	17.0	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	New Mexico, total	690	156	16.6	120.7	13.0	26.6	90.2	718.8	477.5	1,034.4	161.9	17.6	649.6
	COUNTIES[2]													
	Chaves county, total	76	6	.4	3.4	.3	.6	1.8	24.0	7.9	20.1	11.8	.6	9.9
13	Oil and gas extraction	73	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	9.3
131	Crude petroleum and natural gas	49	4	.3	2.4	.1	.3	.9	22.3	6.7	17.5	11.6	.4	8.2
138	Oil and gas field services	24	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.2
	Colfax county, total	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Eddy county, total	168	19	4.4	34.2	3.3	6.7	24.7	137.5	58.5	174.1	21.9	4.7	129.0
13	Oil and gas extraction	155	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.2	52.7
131	Crude petroleum and natural gas	94	4	.3	1.9	.2	.4	1.1	60.4	16.6	62.1	14.9	.5	42.8
138	Oil and gas field services	55	5	.5	2.6	.4	.8	2.2	6.6	2.7	8.3	1.0	.7	7.6
14	Nonmetallic minerals, except fuels	11	8	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	9	8	3.5	28.8	2.6	5.4	20.7	66.9	26.0	88.7	4.2	3.4	75.0
	Grant county, total	19	11	1.3	9.8	1.2	2.3	8.4	16.4	47.4	45.9	17.9	(D)	(D)
10	Metal mining	17	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	8	5	.8	6.2	.7	1.4	5.2	10.8	45.0	38.4	17.4	(D)	(D)
103	Lead and zinc ores	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
108	Metal mining services	4	3	.2	2.2	.2	.5	2.1	3.2	1.1	4.2	.1	(D)	(D)
	Lea county, total	313	69	4.5	30.6	3.7	7.7	23.2	316.8	163.0	423.7	56.0	5.0	284.9
13	Oil and gas extraction	310	68	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	137	17	1.4	10.9	1.0	1.9	6.4	255.9	70.2	280.3	45.8	1.5	225.0
132	Natural gas liquids	23	13	.6	4.6	.5	1.0	4.2	28.6	71.4	93.8	6.1	.5	23.8
138	Oil and gas field services	150	38	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	McKinley county, total	16	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	57.8
10	Metal mining	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Rio Arriba county, total	47	5	.6	3.9	.4	.8	2.6	27.4	12.2	30.9	8.7	.5	17.7
13	Oil and gas extraction	44	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	32	1	.4	2.8	.3	.6	1.8	24.7	7.0	23.3	8.5	.4	15.4
138	Oil and gas field services	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Roosevelt county, total	59	2	.2	1.2	.2	.3	1.0	15.9	6.1	16.9	5.2	.2	8.5
13	Oil and gas extraction	59	2	.2	1.2	.2	.3	1.0	15.9	6.1	16.9	5.2	.2	8.5
138	Oil and gas field services	18	2	.1	.8	.1	.2	.8	1.3	.7	1.9	.1	.1	1.2
	San Juan county, total	122	22	1.8	12.7	1.4	2.9	9.7	90.9	108.4	174.3	24.9	2.0	72.5
10	Metal mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	New Mexico--Continued													
	COUNTIES[2]--Continued													
13	Oil and gas extraction.....	114	20	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	69.4
131	Crude petroleum and natural gas.....	48	4	.7	4.8	.4	.9	2.9	65.3	16.6	66.1	15.8	.8	54.7
132	Natural gas liquids.....	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	62	12	.7	4.7	.6	1.3	4.1	11.7	4.0	14.3	1.3	(D)	(D)
	Taos county, total.....	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.6
10	Metal mining.....	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
106	Ferroalloy ores, except vanadium.....	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Valencia county, total.....	9	6	1.4	11.4	1.1	2.3	8.4	35.1	20.5	48.7	6.9	(D)	(D)
10	Metal mining.....	6	5	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores....	5	4	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New Mexico, total	690	54	-	13	567	56
0 to 4 employees	364	20	-	8	307	29
5 to 9 employees	89	6	-	2	70	11
10 to 19 employees	81	5	-	-	72	4
20 to 49 employees	94	11	-	1	78	4
50 to 99 employees	30	1	-	-	29	-
100 to 249 employees	19	5	-	2	10	2
250 to 499 employees	7	4	-	-	-	3
500 to 999 employees	6	2	-	-	1	3
Bernalillo county, total	23	7	-	-	8	8
0 to 19 employees	22	7	-	-	7	8
20 to 99 employees	1	-	-	-	1	-
Catron county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Chaves county, total	76	-	-	-	73	3
0 to 19 employees	70	-	-	-	67	3
20 to 99 employees	6	-	-	-	6	-
Colfax county, total	3	-	-	3	-	-
0 to 19 employees	2	-	-	2	-	-
100 to 249 employees	1	-	-	1	-	-
Curry county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
De Baca county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Dona Ana county, total	6	-	-	-	2	4
0 to 19 employees	6	-	-	-	2	4
Eddy county, total	168	2	-	-	155	11
0 to 19 employees	149	1	-	-	145	3
20 to 99 employees	11	1	-	-	9	1
100 to 249 employees	2	-	-	-	1	1
250 employees and over	6	-	-	-	-	6
Grant county, total	19	17	-	-	-	2
0 to 19 employees	8	6	-	-	-	2
20 to 99 employees	6	6	-	-	-	-
100 to 249 employees	4	4	-	-	-	-
250 employees and over	1	1	-	-	-	-
Hidalgo county, total	5	4	-	-	1	-
0 to 19 employees	4	3	-	-	1	-
20 to 99 employees	1	1	-	-	-	-
Lea county, total	313	1	-	-	310	2
0 to 19 employees	244	1	-	-	242	1
20 to 99 employees	61	-	-	-	61	-
100 to 249 employees	8	-	-	-	7	1
Lincoln county, total	3	1	-	-	-	2
0 to 19 employees	3	1	-	-	-	2
Luna county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
McKinley county, total	16	4	-	3	8	1
0 to 19 employees	12	2	-	2	7	1
20 to 99 employees	3	1	-	1	1	-
250 employees and over	1	1	-	-	-	-
Mora county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Otero county, total	3	1	-	-	1	1
0 to 19 employees	3	1	-	-	1	1
Quay county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Rio Arriba county, total	47	-	-	1	44	2
0 to 19 employees	42	-	-	1	39	2
20 to 99 employees	4	-	-	-	4	-
250 employees and over	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New Mexico--Continued						
Roosevelt county, total	59	-	-	-	59	-
0 to 19 employees	57	-	-	-	57	-
20 to 99 employees	2	-	-	-	2	-
Sandoval county, total	9	-	-	1	8	-
0 to 19 employees	9	-	-	1	8	-
San Juan county, total	122	3	-	3	114	2
0 to 19 employees	100	2	-	2	94	2
20 to 99 employees	18	-	-	-	18	-
100 to 249 employees	3	1	-	1	1	-
250 employees and over	1	-	-	-	1	-
San Miguel county, total	3	1	-	-	1	1
0 to 19 employees	3	1	-	-	1	1
Santa Fe county, total	14	2	-	1	4	7
0 to 19 employees	13	2	-	1	4	6
20 to 99 employees	1	-	-	-	-	1
Socorro county, total	5	4	-	1	-	-
0 to 19 employees	4	3	-	1	-	-
20 to 99 employees	1	1	-	-	-	-
Taos county, total	6	2	-	-	1	3
0 to 19 employees	3	1	-	-	1	1
20 to 99 employees	2	-	-	-	-	2
250 employees and over	1	1	-	-	-	-
Torrance county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Union county, total	4	-	-	-	2	2
0 to 19 employees	4	-	-	-	2	2
Valencia county, total	9	6	-	-	2	1
0 to 19 employees	3	1	-	-	1	1
20 to 99 employees	3	2	-	-	1	-
250 employees and over	3	3	-	-	-	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

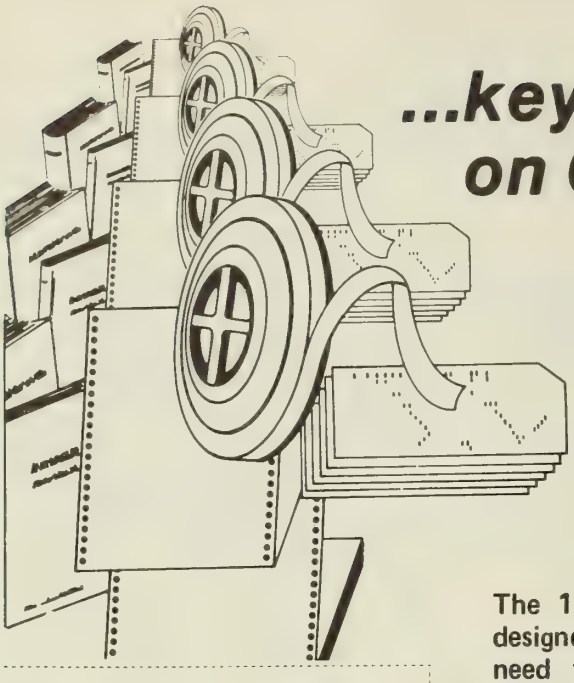
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-881

1967 CENSUS OF Mineral Industries



MIC67(2)-31

AREA STATISTICS

NEW YORK

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	8
5	General Statistics by County and Industry Groups: 1967 and 1963	9
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	11
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

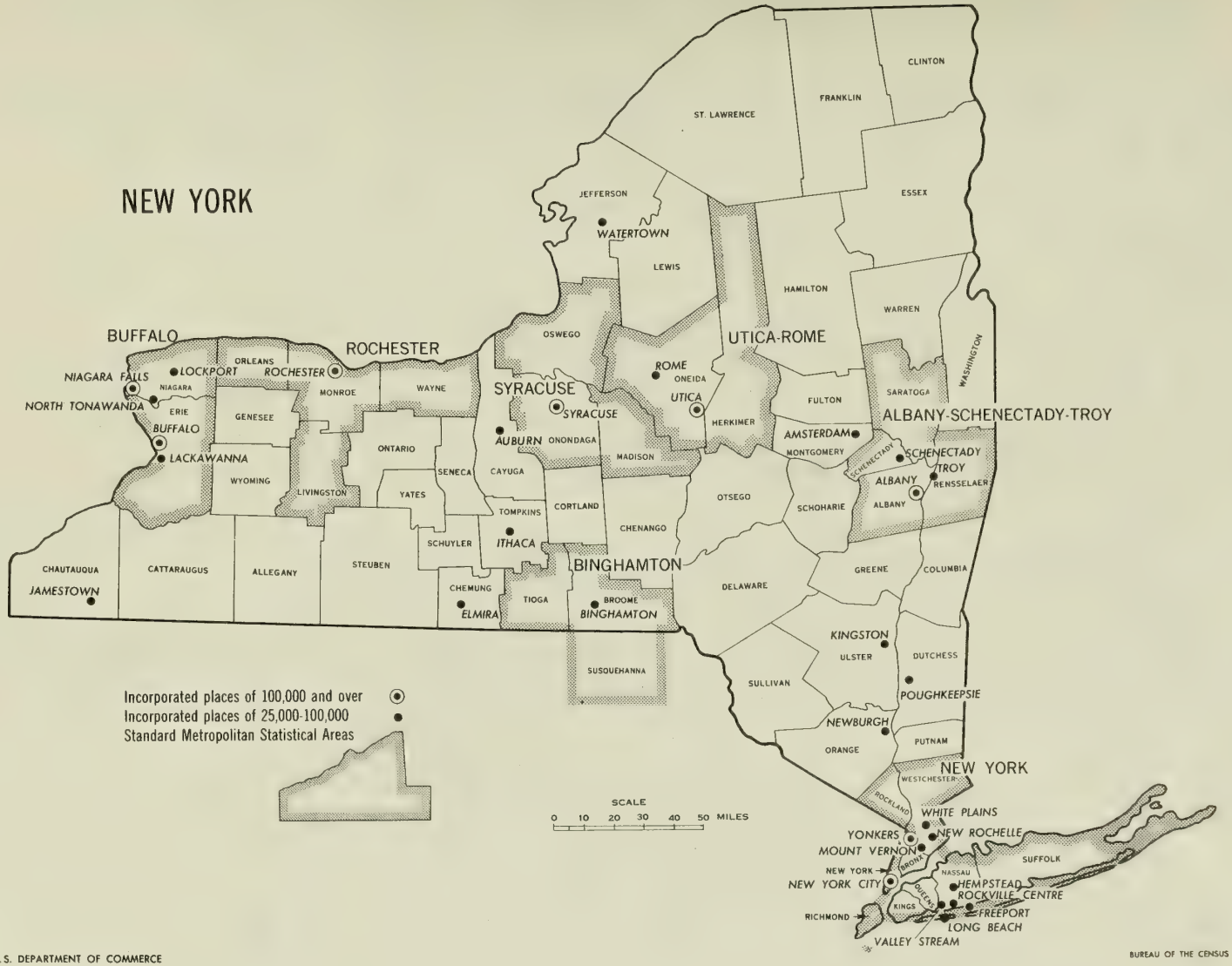
WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]467	87	9.1	81.7	5.9	12.6	43.0	137.5
1963	[1]518	69	9.9	71.2	6.6	13.9	41.3	129.7
1958	543	69	9.7	57.0	6.4	13.6	34.0	116.0
1954	629	68	11.5	62.9	7.6	16.9	35.2	96.8
Including operations in manufactures:								
1967	517	94	9.6	84.7	6.4	13.6	45.9	148.6
1963	590	79	10.7	75.1	7.4	15.5	45.2	141.8
1958	622	82	10.5	60.5	7.2	15.1	37.4	129.6
1954[2]	694	80	12.4	66.3	8.5	18.6	38.5	104.7
1939[3]	[4]518	(NA)	8.7	15.4	7.0	14.7	9.7	32.8
Excluding oil and gas extraction industries:								
1967	381	82	8.8	77.0	6.0	12.7	43.7	138.5
1963	400	73	9.6	68.2	6.8	14.1	41.9	132.2
1958	387	75	9.4	54.5	6.5	13.8	34.8	122.1
1954[2]	387	71	9.9	54.1	7.3	16.3	34.8	95.7
1939[5]	[4]291	(NA)	6.9	12.5	5.5	11.7	7.7	22.2
1929[6]	261	(NA)	7.1	12.6	6.4	(NA)	10.0	28.4
Excluding sand, gravel, common clay, and shale operations and stone quarries operated as parts of cement and lime plants:								
1967	342	81	8.4	77.1	5.0	10.8	36.8	121.6
1963	312	53	8.3	60.9	5.5	11.6	34.0	107.9
1958	358	59	[7]8.3	[7]48.5	[7]5.5	[7]11.6	[7]28.4	96.7
1954	429	56	10.2	56.1	6.7	14.5	30.3	77.9
1939[8]	[4]349	(NA)	6.7	12.2	5.3	(NA)	7.0	25.1
1919	700	(NA)	7.0	8.9	6.2	(NA)	7.5	15.5
1909	1,356	(NA)	10.0	5.4	9.3	(NA)	4.7	10.2
1902[9]	[4]699	(NA)	7.9	4.6	[10]7.2	(NA)	3.9	7.7

Kind of operation and year	Selected expenses				Value of shipments and receipts[11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12]47.1	([12])	6.6	([12])	175.5	15.7	(NA)
1963	35.4	3.3	5.1	8.4	166.6	15.3	3.1
1958	29.5	5.0	4.0	5.9	147.6	12.8	2.8
1954	26.5	.3	5.0	12.2	128.4	12.4	3.3
Including operations in manufactures:							
1967	[13]56.4	([13])	([13])	([13])	189.3	(NA)	(NA)
1963	[14]39.2	3.3	[14]5.1	[15]8.4	182.4	[12]15.4	[15]3.1
1958	[14]31.9	5.0	[14]4.0	[15]6.1	163.7	[12]2.9	[15]2.8
1954[2]	[14]28.7	.3	[14]5.0	[15]12.2	138.5	[12]12.5	[15]3.3
1939[3]	7.0	(NA)	1.4	(NA)	41.2	(NA)	1.7
1929							
1919							
1909							
1902							
Excluding oil and gas extraction industries:							
1967	[13]53.6	([13])	([13])	([13])	177.9	(NA)	(NA)
1963	[14]36.9	3.3	[14]2.8	[15]7.9	171.0	[12]12.1	[15]3.0
1958	[14]30.2	5.0	[14]2.9	[15]5.7	154.9	[12]11.1	[15]2.4
1954[2]	[14]25.1	.3	[14]4.0	[15]11.3	127.1	9.4	2.8
1939[5]	6.0	(NA)	.2	(NA)	28.3	(NA)	1.2
1929[6]	7.5	(NA)	.1	1.7	36.0	(NA)	1.2

See footnotes at end of table.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

(See appendix, Explanation of Terms)

Kind of operation and year	Selected expenses				Value of shipments and receipts (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Excluding sand, gravel, common clay, and shale operations and stone quarries operated as parts of cement and lime plants:							
1967	42.4	([13])	([13])	([13])	153.2	(NA)	(NA)
1963	30.4	3.1	[14]4.0	[15]6.7	139.2	[15]12.8	[15]2.6
1958	[7]25.8	4.9	[14]3.2	[15]4.4	[7]124.5	[15]10.7	[15]2.4
1954	[14]23.3	.3	[14]4.1	[15]9.7	104.7	[15]10.6	[15]3.1
1939[8]	5.4	(NA)	1.4	(NA)	31.9	(NA)	(NA)
1919	6.1	2.7	.8	(NA)	25.1	(NA)	[16]1.4
1909	2.5	.1	.5	(NA)	13.3	(NA)	(NA)
1902[9]	1.6	(NA)	.4	(NA)	9.7	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 73 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes figures for sand and gravel mining operations in manufacturing establishments.

[3]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing sandstone and slate at such operations was $78 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for granite is not available.

[4]Represents number of mines and quarries and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Includes figures for one natural gas liquids plant and 4 nonproducing crude petroleum and natural gas establishments. See also footnote 6.

[6]Excludes figures for common clay and shale mining operations. In 1939, there were 34 such mines with products valued at $420 thousand. Also excludes data for 2 nonproducing establishments.

[7]Includes figures for 24 sand and gravel mining operations in manufacturing establishments with products valued at less than $3 million.

[8]Includes figures for 4 or less limestone quarries operated as parts of lime plants and for one nonproducing sand and gravel establishment. See also footnote 5.

[9]Includes figures for lime plants producing lime valued at $561 thousand.

[10]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[11]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For energy used and horsepower in 1963, also excludes figures for dimension stone operations in manufactures.

[15]Excludes figures for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[16]Excludes purchased electric energy. For such operations in 1954, the quantity of purchased electric energy amounted to only 9 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	467	87	9.1	81.7	5.9	12.6	43.0	137.5	53.7	175.5	15.7	9.9	129.7
10	Metal mining	32	14	2.9	27.8	1.6	3.3	12.2	34.9	13.2	45.8	2.2	3.2	36.3
1011	Iron ores	5	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	21.2
1021	Copper ores	10	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	6	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1032	Lead ores	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1093	Titanium ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	136	12	.8	7.7	.4	.9	2.2	10.1	2.8	11.4	1.5	1.0	9.6
131	Crude petroleum and natural gas	98	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	8.0
1312	Crude petroleum	85	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	6.8
1313	Natural gas	13	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.1
138	Oil and gas field services	38	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.6
1381	Drilling oil and gas wells	17	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.9
14	Nonmetallic minerals, except fuels	295	60	5.4	45.4	3.9	8.5	28.5	92.5	37.8	118.3	12.0	5.5	83.9
142	Crushed and broken stone	71	29	2.1	18.1	1.6	3.8	13.2	38.8	16.8	50.2	5.4	1.6	36.0
1422	Crushed and broken limestone	49	21	1.4	11.2	1.1	2.5	8.1	25.6	9.0	31.7	2.8	1.6	28.3
1423	Crushed and broken granite	4	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	18	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	180	16	1.5	11.0	1.3	2.6	8.5	25.7	12.1	33.3	4.5	1.7	23.5
1442	Construction sand and gravel	169	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	22.8
145	Clay and related minerals	8	3	.1	1.6	.1	.2	.6	1.3	1.9	2.8	.3	(D)	(D)
1459	Clay and related minerals, n.e.c.	4	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	8	7	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1474	Potash, soda, and borate minerals	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	3	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1477	Sulfur	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1479	Chemical and fertilizer mining, n.e.c.	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	19	4	.5	3.5	.4	.8	2.5	6.6	2.8	8.8	.6	.5	7.8
1496	Talc, soapstone, and pyrophyllite	7	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1497	Natural abrasives, except sand	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	50	7	0.5	3.0	0.5	1.0	2.9	11.1	2.7	13.8	(NA)	0.8	12.0
142	Crushed and broken stone	8	4	0.1	1.0	0.1	0.3	1.0	3.4	1.4	4.7	(NA)	0.2	3.8
144	Sand and gravel	22	-	0.1	0.5	0.1	0.2	0.5	4.6	0.5	5.1	(NA)	0.2	4.7
1492	Gypsum	4	1	0.1	0.5	0.1	0.2	0.5	1.6	0.4	2.0	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New York:													
	Establishments.....number..	467	460	64	3	34	27	174	10	155	9	3	219	7
	Employees.....1,000..	9.1	9.1	(D)	(D)	(D)	(D)	5.6	(D)	3.8	(D)	(D)	3.0	(D)
	Value added in mining..mil.dol..	137.5	(D)	(D)	(D)	(D)	(D)	115.7	(D)	74.9	(D)	(D)	11.3	(D)
10	Metal mining:													
	Establishments.....number..	32	29	4	1	3	-	6	4	2	-	-	19	3
	Employees.....1,000..	2.9	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	34.9	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	5	4	-	-	-	-	3	2	1	-	-	1	1
	Employees.....1,000..	(D)	1.1	-	-	-	-	(D)	(D)	(D)	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	19.1	-	-	-	-	(D)	(D)	(D)	-	-	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	10	9	2	-	2	-	-	-	-	-	-	7	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	.9	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	(D)
103	Lead and zinc ores:													
	Establishments.....number..	6	6	1	1	-	-	2	2	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	(D)	-
104	Gold and silver ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	-	-	-	-	(D)
1081	Metal mining services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	4	4	1	-	1	-	1	-	1	-	-	2	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining..mil.dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining..mil.dol..	-	-	-	-	-	-	-	-	-	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	136	133	27	-	-	27	-	-	-	-	-	106	3
	Employees.....1,000..	.8	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	10.1	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	98	95	27	-	-	27	-	-	-	-	-	68	3
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	38	38	-	-	-	-	-	-	-	-	-	38	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	295	294	33	2	31	-	168	6	153	9	3	90	1
	Employees.....1,000..	5.4	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)	1.3	(D)
	Value added in mining..mil.dol..	92.5	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	(D)	6.8	(D)
141	Dimension stone:													
	Establishments.....number..	4	4	3	-	3	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967–Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	New York--Continued													
	Nonmetallic minerals, except fuels--Continued													
142	Crushed and broken stone:													
	Establishments.....number..	71	71	-	-	-	-	66	-	66	-	1	4	-
	Employees.....1,000..	2.1	2.1	-	-	-	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	38.8	38.8	-	-	-	-	(D)	-	(D)	-	(D)	(D)	-
144	Sand and gravel:													
	Establishments.....number..	180	179	19	-	19	-	88	-	79	9	2	70	1
	Employees.....1,000..	1.5	(D)	(D)	-	(D)	-	.8	-	(D)	(D)	(D)	.5	(D)
	Value added in mining..mil.dol..	25.7	(D)	(D)	-	(D)	-	17.1	-	(D)	(D)	(D)	5.6	(D)
145	Clay and related minerals:													
	Establishments.....number..	8	8	2	-	2	-	3	-	3	-	-	3	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	1.3	1.3	(D)	-	(D)	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	8	8	-	-	-	-	3	3	-	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	.4	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	19	19	9	2	7	-	7	3	4	-	-	3	-
	Employees.....1,000..	.5	.5	.1	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	6.6	6.6	.8	(D)	(D)	-	(D)	(D)	(D)	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	467	518	Cost of supplies, total.....million dollars..	53.7	52.1
With 0 to 19 employees.....do....	380	449	Supplies used, minerals received for preparation, and purchased machinery.....do....	35.9	(NA)
With 20 to 99 employees.....do....	65	53	Cost of resales.....do....	.3	(NA)
With 100 or more employees.....do....	22	16	Purchased fuels consumed.....do....	5.5	(NA)
All employees (average for year).....1,000..	9.1	9.9	Electric energy:		
Payroll (all employees), total for year.....million dollars..	81.7	71.2	Quantity purchased.....million kw.-hrs..	410.0	(NA)
			Cost.....million dollars..	5.4	(NA)
			Generated less sold.....million kw.-hrs..	1.5	(NA)
			Contract work.....million dollars..	6.6	5.1
Production, development, and exploration workers:			Value of shipments and receipts (including resales), total.....do....	175.5	168.6
Average for the year.....1,000..	5.9	6.6	Value of resales.....do....	.5	(NA)
March.....do....	5.6	(NA)			
May.....do....	6.1	(NA)	Value added in mining.....do....	137.5	129.3
August.....do....	6.0	(NA)			
November.....do....	5.9	(NA)	Capital expenditures (except land and mineral rights), total.....do....	15.7	15.3
Man-hours.....millions..	12.6	13.9	Mineral development and exploration.....do....	1.8	3.9
Wages.....million dollars..	43.0	41.3	New structures and additions.....do....	1.1	
			New machinery and equipment.....do....	10.3	11.4
Supplemental labor cost not included in payroll.....do..	6.2	(NA)	Used plant and equipment.....do....	2.4	
			Mineral development and exploration expenditures, total.....do....	4.0	(NA)
Legally required expenditures, including Social Security contributions.....do..	3.3	(NA)	Capitalized.....do....	1.8	3.9
Payments for voluntary programs.....do..	2.8	(NA)	Expensed.....do....	2.2	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	New York, total	467	87	9.1	81.7	5.9	12.6	43.0	137.5	53.7	175.5	15.7	9.9	129.7
	COUNTIES [2]													
	Albany county, total	12	3	.2	1.6	.1	.3	.8	2.8	1.3	3.5	.5	.2	2.8
14	Nonmetallic minerals, except fuels	12	3	.2	1.6	.1	.3	.8	2.8	1.3	3.5	.5	(D)	(D)
142	Crushed and broken stone	4	2	.2	1.4	.1	.3	.7	2.4	1.0	2.9	.5	(D)	(D)
	Allegany county, total	55	3	.2	1.3	.2	.3	.9	2.3	.7	2.6	.3	.4	3.6
13	Oil and gas extraction	53	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.2
131	Crude petroleum and natural gas	39	3	.2	1.0	.1	.2	.6	1.6	.5	1.9	.3	.3	2.9
	Cattaraugus county	39	-	.2	.9	.1	.3	.7	2.8	.7	2.8	.6	.2	4.4
	Clinton county, total	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Dutchess county, total	20	4	.4	3.6	.3	.8	3.2	8.3	4.5	11.8	1.0	.2	7.6
14	Nonmetallic minerals, except fuel	20	4	.4	3.6	.3	.8	3.2	8.3	4.5	11.8	1.0	.2	7.6
142	Crushed and broken stone	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	15	3	.2	1.2	.2	.3	1.1	2.4	1.4	3.6	.2	(D)	(D)
	Erie county, total	27	7	.5	3.7	.3	.7	2.3	7.5	3.9	9.7	1.7	.5	5.0
14	Nonmetallic minerals, except fuel	19	6	.5	3.3	.3	.7	2.0	6.9	3.7	9.1	1.5	.3	4.7
142	Crushed and broken stone	5	5	.4	2.5	.2	.5	1.4	4.8	2.8	6.3	1.3	.3	3.0
	Essex county, total	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Livingston county, total	6	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Monroe county, total	9	2	.1	1.0	.1	.2	.8	3.2	1.1	4.0	.4	.2	2.1
14	Nonmetallic minerals, except fuel	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.1
	Nassau county, total	14	1	.1	1.3	.1	.2	1.1	3.2	.9	3.9	.2	.4	8.6
14	Nonmetallic minerals, except fuel	13	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	New York county, total	64	19	2.0	26.3	.1	.2	.4	2.9	.6	3.1	.4	(D)	(D)
10	Metal mining	22	7	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	10	4	.9	10.9	(Z)	(Z)	(Z)	(Z)	(Z)	.1	(Z)	(D)	(D)
103	Lead and zinc ores	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	28	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	23	6	.4	5.1	.1	.1	.2	2.6	.5	2.8	.3	(D)	(D)
14	Nonmetallic minerals, except fuel	10	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	4	4	.4	6.2	-	-	-	-	-	-	-	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	New York--Continued													
	COUNTIES[2]--Continued													
	Oneida county, total	12	5	.2	1.5	.1	.3	.9	2.4	1.1	3.1	.4	.2	2.3
14	Nonmetallic minerals, except fuel	12	5	.2	1.5	.1	.3	.9	2.4	1.1	3.1	.4	.1	2.3
144	Sand and gravel	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Onondaga county, total	13	2	.3	2.2	.3	.6	1.8	5.5	1.2	6.5	.2	.4	4.9
14	Nonmetallic minerals, except fuel	12	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Rockland county, total	9	5	.3	3.7	.2	.5	2.5	5.5	2.9	7.3	1.1	.4	7.3
14	Nonmetallic minerals except fuel	8	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	5	5	.3	3.5	.2	.5	2.3	4.8	2.6	6.4	1.0	(D)	(D)
	St. Lawrence county, total	14	4	1.1	8.3	1.0	2.0	6.7	27.0	8.2	33.6	1.6	1.4	27.8
10	Metal mining	4	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	10	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	5	1	.2	1.5	.2	.4	1.3	3.8	1.2	4.9	.2	(D)	(D)
	Suffolk county, total	19	2	.4	2.5	.3	.7	1.6	5.8	3.5	7.4	2.0	.3	5.9
14	Nonmetallic minerals except fuel	19	2	.4	2.5	.3	.7	1.6	5.8	3.5	7.4	2.0	.3	5.9
144	Sand and gravel	18	2	.4	2.5	.3	.7	1.6	5.8	3.5	7.4	2.0	.3	5.9
	Tompkins county, total	4	2	.2	1.7	.2	.5	1.3	3.6	1.1	4.3	.3	(D)	(D)
14	Nonmetallic minerals, except fuel	4	2	.2	1.7	.2	.5	1.3	3.6	1.1	4.3	.3	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ulster county, total	8	6	.3	2.5	.2	.5	1.6	4.1	3.4	6.9	.6	.2	2.3
14	Nonmetallic minerals, except fuel	8	6	.3	2.5	.2	.5	1.6	4.1	3.4	6.9	.6	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Warren county, total	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Westchester county, total	13	2	.1	.7	.1	.2	.5	.9	.3	1.1	.1	.1	.6

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New York, total	467	32	-	4	136	295
0 to 4 employees	216	11	-	2	92	111
5 to 9 employees	86	2	-	1	25	58
10 to 19 employees	78	5	-	-	7	66
20 to 49 employees	52	3	-	1	10	38
50 to 99 employees	13	2	-	-	2	9
100 to 249 employees	15	3	-	-	-	12
250 to 499 employees	6	5	-	-	-	1
500 to 999 employees	1	1	-	-	-	-
Albany county, total	12	-	-	-	-	12
0 to 19 employees	9	-	-	-	-	9
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Allegany county, total	55	-	-	-	53	2
0 to 19 employees	52	-	-	-	50	2
20 to 99 employees	3	-	-	-	3	-
Broome county, total	5	-	-	-	1	4
0 to 19 employees	5	-	-	-	1	4
Cattaraugus county, total	39	-	-	-	30	9
0 to 19 employees	39	-	-	-	30	9
Cayuga county, total	4	-	-	-	3	1
0 to 19 employees	3	-	-	-	3	-
20 to 99 employees	1	-	-	-	-	1
Chautauqua county, total	8	-	-	-	6	2
0 to 19 employees	8	-	-	-	6	2
Chemung county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Clinton county, total	1	1	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Columbia county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Cortland county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Delaware county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Dutchess county, total	20	-	-	-	-	20
0 to 19 employees	16	-	-	-	-	16
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	1	-	-	-	-	1
Erie county, total	27	1	-	-	7	19
0 to 19 employees	20	1	-	-	6	13
20 to 99 employees	5	-	-	-	1	4
100 to 249 employees	2	-	-	-	-	2
Essex county, total	3	2	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
250 employees and over	2	2	-	-	-	-
Franklin county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Fulton county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Genesee county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
Greene county, total	4	1	-	-	-	3
0 to 19 employees	4	1	-	-	-	3
Herkimer county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New York--Continued						
Jefferson county, total	9	-	-	-	-	9
0 to 19 employees	8	-	-	-	-	8
20 to 99 employees	1	-	-	-	-	1
Kings county, total	1	1	-	-	-	-
20 to 99 employees	1	1	-	-	-	-
Lewis county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Livingston county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Madison county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Monroe county, total	9	-	-	-	1	8
0 to 19 employees	7	-	-	-	1	6
20 to 99 employees	2	-	-	-	-	2
Montgomery county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Nassau county, total	14	-	-	-	1	13
0 to 19 employees	13	-	-	-	1	12
20 to 99 employees	1	-	-	-	-	1
New York county, total	60	22	-	-	28	10
0 to 19 employees	42	15	-	-	22	5
20 to 99 employees	13	4	-	-	6	3
100 to 249 employees	3	1	-	-	-	2
250 employees and over	2	2	-	-	-	-
Niagara county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Oneida county, total	12	-	-	-	-	12
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	5	-	-	-	-	5
Onondaga county, total	13	-	-	-	1	12
0 to 19 employees	11	-	-	-	1	10
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Ontario county, total	9	-	-	-	2	7
0 to 19 employees	8	-	-	-	2	6
20 to 99 employees	1	-	-	-	-	1
Orange county, total	8	-	-	-	1	7
0 to 19 employees	8	-	-	-	1	7
Orleans county, total	5	-	-	-	2	3
0 to 19 employees	5	-	-	-	2	3
Oswego county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Otsego county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Putnam county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Queens county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Rensselaer county, total	14	-	-	-	-	14
0 to 19 employees	14	-	-	-	-	14
Richmond county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
New York--Continued						
Rockland county, total	9	-	-	-	1	8
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	-	-	-	-	1
St Lawrence county, total	14	4	-	-	-	10
0 to 19 employees	10	1	-	-	-	9
100 to 249 employees	2	1	-	-	-	1
250 employees and over	2	2	-	-	-	-
Saratoga county, total	8	-	-	-	-	8
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	1	-	-	-	-	1
Schenectady county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Schoharie county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Seneca county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Steuben county, total	5	-	-	-	3	2
0 to 19 employees	5	-	-	-	3	2
Suffolk county, total	19	-	-	-	-	19
0 to 19 employees	17	-	-	-	-	17
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Sullivan county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Tioga county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Tompkins county, total	4	-	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Ulster county, total	8	-	-	-	-	8
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	6	-	-	-	-	6
Warren county, total	4	1	-	-	-	3
0 to 19 employees	3	1	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Washington county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Wayne county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Westchester county, total	13	-	-	-	2	11
0 to 19 employees	11	-	-	-	1	10
20 to 99 employees	2	-	-	-	-	1
Wyoming county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Yates county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Offshore	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.

[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-874

1967 CENSUS OF Mineral Industries



MIC67(2)-32

AREA STATISTICS

NORTH CAROLINA

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



NORTH CAROLINA

Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]161	59	3.5	18.8	2.9	6.7	14.4	46.7
1963	[1]169	46	2.6	10.9	2.3	5.0	8.7	31.6
1958	231	53	3.7	12.3	3.3	6.8	10.3	27.5
1954	513	44	3.6	10.4	3.3	7.4	9.2	[2]30.7
Including operations in manufactures:								
1967	190	62	4.0	20.8	3.4	7.6	16.2	52.8
1963	226	48	3.1	12.6	2.7	5.8	10.2	35.2
1958	267	57	4.3	13.9	3.8	7.8	11.7	31.8
1954[3]	546	46	4.0	11.6	3.8	8.3	10.3	[2]33.1
1939[4]	[5]111	(NA)	2.0	1.4	1.8	3.7	1.1	3.4
1929[6]	123	(NA)	2.8	2.8	2.6	(NA)	2.3	4.4
1919[7]	102	(NA)	2.0	1.7	1.9	(NA)	1.5	2.0
1909[7]	127	(NA)	2.4	1.0	2.2	(NA)	.9	1.1
1902[8]	[5]155	(NA)	2.1	.7	[9]1.9	(NA)	.6	.7

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11]27.6	([11])	1.9	([11])	67.4	8.8	(NA)
1963	[12]11.6	([12])	1.7	4.1	44.4	4.5	.9
1958	11.7	[2].4	.6	3.0	39.4	3.9	.7
1954	8.2	[2].2	9	3.0	[2]39.6	3.4	.5
Including operations in manufactures:							
1967	[13]31.0	([13])	([13])	([13])	75.0	(NA)	(NA)
1963	[14]12.2	.3	[14]1.7	[15]4.2	49.3	[15]4.6	[15].9
1958	[14]12.6	.5	[14].6	[15]3.1	44.6	[15]4.0	[15].8
1954[3]	[14]9.0	[2].2	[14].9	[15]3.1	[2]42.8	[15]3.5	[15].5
1939[4]	1.1	(NA)	7	(NA)	4.5	(NA)	.2
1929[6]	1.6	(NA)	(Z)	151	6.0	(NA)	.4
1919[7]	.7	-	(Z)	(NA)	2.7	(NA)	[16].3
1909[7]	.3	-	(Z)	(NA)	1.4	(NA)	(NA)
1902[8]	.2	(NA)	(Z)	(NA)	.9	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 18 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes figures for the Uranium-Radium-Vanadium Ores Industry.

[3]All figures except number of establishments exclude data for one fire clay mining operation in a manufacturing plant. Also excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite at such operations was $280 thousand; this value has been included in the value of shipments and value added in mining. The comparable values for sandstone and marble are not available.

[5]Represents number of mines and quarries.

[6]Excludes data for common clay and shale mining operations. In 1939, there were 23 such mines with products valued at $184 thousand.

[7]Excludes data for sand and gravel mining operations. In 1929, there were 6 such establishments, with products valued at $350 thousand. See also footnote 6. For 1919, also excludes data for 2 nonproducing establishments.

[8]Includes data for lime plants producing lime valued at $2 thousand.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For sand and gravel and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For all other years, represents net production and excludes this duplication.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Figures for the cost of minerals received for preparation are included with those for t of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For sand and gravel and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes data for sand and gravel and clay mining operations in manufacturing establishments.

[16]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 3 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	161	59	3.5	18.8	2.9	6.7	14.4	46.7	29.5	67.4	8.8	2.6	31.6
14	Nonmetallic minerals, except fuels	156	59	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
141	Dimension stone	6	1	.1	.3	.1	.2	.3	.4	.1	.5	(Z)	(NA)	(NA)
1419	Dimension stone, n.e.c	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	73	37	1.7	8.9	1.4	3.4	7.0	28.3	16.8	40.0	5.1	1.1	16.5
1422	Crushed and broken limestone	13	5	.3	2.2	.2	.5	1.2	5.6	2.7	7.5	.7	(D)	3.4
1423	Crushed and broken granite	47	27	1.1	5.3	1.0	2.3	4.6	19.0	10.7	26.1	3.5	(D)	(D)
1429	Crushed and broken stone, n.e.c	13	5	.3	1.3	.2	.5	1.2	3.7	3.5	6.3	.9	(D)	(D)
144	Sand and gravel	35	7	.5	2.6	.4	1.0	2.1	6.6	2.8	7.9	1.5	.5	6.2
1442	Construction sand and gravel	34	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	13	6	.3	1.6	.3	.7	1.4	3.9	2.9	6.5	.3	.3	3.2
1455	Kaolin and ball clay	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1456	Feldspar	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c	6	1	.1	.3	.1	.1	.3	.5	.6	1.1	(Z)	.1	.5
147	Chemical and fertilizer minerals	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1479	Chemical and fertilizer mining, n.e.c	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	25	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1493	Mica	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophillite	8	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	29	3	0.5	2.0	0.5	0.9	1.8	6.1	1.5	7.6	(NA)	0.5	3.6
145	Clay and related minerals, n.e.c	24	-	0.1	0.4	0.1	0.2	0.4	3.1	0.5	3.6	(Z)	0.1	1.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	North Carolina:													
	Establishments.....number..	161	157	19	-	19	-	114	3	107	4	2	22	4
	Employees.....1,000..	3.5	(D)	.1	-	.1	-	3.1	(D)	2.9	(D)	(D)	(D)	(D)
	Value added in mining.mil.dol..	46.7	(D)	.9	-	.9	-	45.1	(D)	43.3	(D)	(D)	(D)	(D)
10	Metal mining:													
	Establishments.....number..	3	2	-	-	-	-	-	-	-	-	-	2	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	(D)
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	1
1021	Copper ores:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	(D)	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
138	Oil and gas field services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	156	153	19	-	19	-	114	3	107	4	2	18	3
	Employees.....1,000..	(D)	(D)	.1	-	.1	-	3.1	(D)	2.9	(D)	(D)	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	.9	-	.9	-	45.1	(D)	43.3	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	6	6	5	-	5	-	1	-	1	-	-	-	-
	Employees.....1,000..	.1	.1	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	.4	.4	.1	-	.1	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	73	72	1	-	1	-	69	2	67	-	1	1	1
	Employees.....1,000..	1.7	(D)	(D)	-	(D)	-	1.5	(D)	(D)	-	(D)	(D)	(D)
	Value added in mining.mil.dol..	28.2	(D)	(D)	-	(D)	-	27.9	(D)	(D)	-	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	35	34	2	-	2	-	17	-	15	2	-	15	1
	Employees.....1,000..	.5	(D)	(D)	-	(D)	-	(D)	-	.4	(D)	-	.1	(D)
	Value added in mining.mil.dol..	6.6	(D)	(D)	-	(D)	-	(D)	-	6.1	(D)	-	.3	(D)
145	Clay and related minerals:													
	Establishments.....number..	13	12	3	-	3	-	9	-	9	-	-	-	1
	Employees.....1,000..	.3	(D)	(D)	-	(D)	-	.3	-	.3	-	-	-	(D)
	Value added in mining.mil.dol..	4.0	(D)	(D)	-	(D)	-	3.8	-	3.8	-	-	-	(D)
147	Chemical and fertilizer minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	25	25	8	-	8	-	16	1	13	2	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.4	(D)	(D)	(D)	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	3.4	(D)	(D)	(D)	(D)	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963
Establishments, total.....number..	161	169
With 0 to 19 employees.....do....	102	123
With 20 to 99 employees.....do....	56	46
With 100 or more employees.....do....	3	-
All employees (average for year).....1,000..	3.5	2.6
Payroll (all employees), total for year.....million dollars..	18.8	10.9
Production, development, and exploration workers:		
Average for the year.....1,000..	2.9	2.3
March.....do....	2.9	(NA)
May.....do....	3.0	(NA)
August.....do....	3.0	(NA)
November.....do....	2.8	(NA)
Man-hours.....millions..	6.7	5.0
Wages.....million dollars..	14.4	8.7
Supplemental labor cost not included in payroll.....do..	1.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	1.0	(NA)
Payments for voluntary programs.....do..	.8	(NA)

Item	1967	1963
Cost of supplies, total.....million dollars..	29.5	11.6
Supplies used, minerals received for preparation, and purchased machinery.....do....	22.7	(NA)
Cost of resales.....do....	.2	(NA)
Purchased fuels consumed.....do....	2.4	(NA)
Electric energy:		
Quantity purchased.....million kw.-hrs..	217.6	(NA)
Cost.....million dollars..	2.4	(NA)
Generated less sold.....million kw.-hrs..	.1	(NA)
Contract work.....million dollars..	1.9	1.7
Value of shipments and receipts (including resales), total.....do....	67.4	44.4
Value of resales.....do....	.2	(NA)
Value added in mining.....do....	46.7	31.6
Capital expenditures (except land and mineral rights), total.....do....	8.8	4.5
Mineral development and exploration.....do....	.5	1.0
New structures and additions.....do....	1.0	3.5
New machinery and equipment.....do....	6.3	
Used plant and equipment.....do....	1.0	
Mineral development and exploration expenditures, total.....do....	.5	(NA)
Capitalized.....do....	.5	1.0
Expensed.....do....	(Z)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	North Carolina, total	161	59	3.5	18.8	2.9	6.7	14.4	46.7	29.5	67.4	8.8	2.6	31.6
	COUNTIES[2]													
	Anson county, total	4	4	.2	.9	.1	.4	.7	2.5	.5	2.9	.2	(D)	(D)
14	Nonmetallic minerals, except fuels	4	4	.2	.9	.1	.4	.7	2.5	.5	2.9	.2	(D)	(D)
144	Sand and gravel	4	4	.2	.9	.1	.4	.7	2.5	.5	2.9	.2	(D)	(D)
	Beaufort county, total	2	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Buncombe county, total	8	2	.1	.6	.1	.2	.5	1.9	.5	2.0	.3	.1	1.1
14	Nonmetallic minerals, except fuels	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cleveland county, total	10	3	.3	1.6	.2	.5	1.2	4.1	3.6	6.6	1.2	.2	3.0
14	Nonmetallic minerals, except fuels	10	3	.3	1.6	.2	.5	1.2	4.1	3.6	6.6	1.2	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Forsyth county, total	8	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	8	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	6	5	.1	.8	.1	.4	.7	2.6	1.2	3.6	.2	(D)	(D)
	Guilford county, total	7	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	7	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	5	4	.1	.7	.1	.3	.6	3.2	1.9	4.2	.9	(D)	(D)
	Harnett county, total	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Mitchell county, total	11	4	.2	1.1	.2	.4	.9	3.0	2.2	4.9	.3	.2	3.0
14	Nonmetallic minerals, except fuels	11	4	.2	1.1	.2	.4	.9	3.0	2.2	4.9	.3	(D)	(D)
145	Clay and related minerals	5	4	.2	1.0	.2	.4	.8	2.8	2.0	4.6	.2	.2	2.7
	Rowan county, total	8	2	.1	.6	.1	.2	.5	2.1	1.2	2.9	.3	(D)	(D)
14	Nonmetallic minerals, except fuels	8	2	.1	.6	.1	.2	.5	2.1	1.2	2.9	.3	(D)	(D)
	Wake county, total	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
North Carolina, total	161	3	-	-	2	156
0 to 4 employees	48	2	-	-	2	44
5 to 9 employees	21	1	-	-	-	20
10 to 19 employees	33	-	-	-	-	33
20 to 49 employees	44	-	-	-	-	44
50 to 99 employees	12	-	-	-	-	12
100 to 249 employees	2	-	-	-	-	2
250 to 499 employees	1	-	-	-	-	1
Alamance county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Anson county, total	4	-	-	-	-	4
20 to 99 employees	4	-	-	-	-	4
Avery county, total	4	1	-	-	-	3
0 to 19 employees	3	1	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Beaufort county, total	2	1	-	-	-	1
0 to 19 employees	1	1	-	-	-	-
250 employees and over	1	-	-	-	-	1
Buncombe county, total	8	1	-	-	1	6
0 to 19 employees	6	1	-	-	1	4
20 to 99 employees	2	-	-	-	-	2
Burke county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Cabarrus county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Caldwell county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Caswell county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Catawba county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Chatham county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cherokee county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Cleveland county, total	9	-	-	-	-	9
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Columbus county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Craven county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Cumberland county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Davidson county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Durham county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Edgecombe county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Forsyth county, total	8	-	-	-	-	8
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	5	-	-	-	-	5

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
North Carolina--Continued						
Gaston county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Granville county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Guilford county, total	7	-	-	-	-	7
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	5	-	-	-	-	5
Harnett county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Haywood county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Henderson county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Iredell county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Jackson county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Johnston county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Jones county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lee county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lincoln county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
McDowell county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Macon county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Mecklenburg county, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
Mitchell county, total	11	-	-	-	-	11
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	4	-	-	-	-	4
Montgomery county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Moore county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Nash county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
New Hanover county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Northampton county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Onslow county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Orange county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
North Carolina--Continued						
Pender county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Pitt county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Randolph county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Rockingham county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Rowan county, total	8	-	-	-	-	8
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	2	-	-	-	-	2
Stanly county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Surry county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Swain county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Union county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Vance county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wake county, total	6	-	-	-	1	5
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	3	-	-	-	-	3
Watauga county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Wayne county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Wilkes county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Wilson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Yancey county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1

[1]Standard Notes: -Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-861

1967 CENSUS OF Mineral Industries



MIC67(2)-33

AREA STATISTICS

NORTH DAKOTA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



NORTH DAKOTA

Incorporated places of 25,000-100,000

Standard Metropolitan Statistical Areas

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] 166	24	1.9	12.6	1.6	3.3	10.1	76.9
1963	[1] 187	23	1.7	9.8	1.4	2.8	7.6	73.7
1958	167	25	2.0	10.7	1.6	3.5	8.0	40.3
1954	146	26	1.8	8.6	1.4	3.0	6.3	[2] 7.2
Including operations in manufactures:								
1967	169	24	(D)	(D)	(D)	(D)	(D)	(D)
1963	191	23	1.7	9.8	1.4	2.9	7.7	74.0
1958	172	25	2.0	10.7	1.6	3.5	8.1	40.4
1954[3]	147	26	1.8	8.6	1.4	3.0	6.3	[2] 7.2
1939[4]	[5] 108	(NA)	1.0	1.0	.9	1.7	.9	2.0
1929[6]	115	(NA)	1.1	1.5	1.0	(NA)	1.3	2.7
1919	79	(NA)	.9	1.2	.8	(NA)	1.0	1.6
1909	53	(NA)	.6	.4	.6	(NA)	.4	.5
1902[7]	[5] 48	(NA)	.4	.2	[8] .3	(NA)	.2	.2

Kind of operation and year	Selected expenses				Value of shipments and receipts [9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10] 33.2	([10])	12.3	([10])	102.8	19.6	(NA)
1963	[11] 16.3	([11])	10.7	10.2	93.1	17.8	1.9
1958	[11] 20.2	([11])	21.4	9.6	65.6	25.9	.8
1954	[11] 9.5	([11])	20.3	14.0	8.7	22.3	.8
Including operations in manufactures:							
1967	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1963	[11,12] 16.4	([11])	[12] 10.7	[13] 10.2	93.5	[13] 17.8	[13] 1.9
1958	[11,12] 20.2	([11])	[12] 21.4	[13] 9.6	65.7	[13] 25.9	[13] .8
1954[3]	[11,12] 9.5	([11])	[12] 20.3	[13] 14.0	[2] 28.7	[13] 22.3	[13] .8
1939[4]	.5	(NA)	(Z)	(NA)	2.5	(NA)	.2
1929[6]	.5	(NA)	(Z)	.1	3.2	(NA)	[14] .3
1919	.3	-	(Z)	(NA)	1.9	(NA)	.1
1909	.1	-	(Z)	(NA)	.6	(NA)	(NA)
1902[7]	.1	(NA)	(Z)	(NA)	.3	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 33 single unit establishments without paid employees in this State. In 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3] Except for number of establishments, excludes data for one clay mining operation in a manufacturing establishment. Excludes data for any sand and gravel mining operations in manufacturing establishments.

[4] Except for number of establishments, excludes data for one mining services establishment and one nonproducing establishment.

[5] Represents number of mines and quarries and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6] Excludes data for one sand and gravel establishment, and for common clay and shale and oil and gas extraction operations, if any.

[7] Includes data for one cement plant.

[8] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9] For sand and gravel and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[10] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11] The cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electricity. However for 1954, excludes the cost of natural gas processed at natural gas liquids plants but includes the value prior to processing of natural gas liquids contained in such gas.

[12] For sand and gravel and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13] Excludes data for sand and gravel and clay mining operations in manufacturing establishments.

[14] Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only one percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	166	24	1.9	12.6	1.6	3.3	10.1	76.9	45.5	102.8	19.6	1.7	73.7
12	Bituminous coal and lignite mining	31	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
121	Bituminous coal and lignite mining	31	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1212	Lignite	30	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	105	16	1.3	8.9	1.1	2.1	7.0	67.6	37.7	87.8	17.5	1.1	67.2
131	Crude petroleum and natural gas	68	3	.5	3.3	.3	.6	2.1	51.8	26.8	63.3	15.4	.4	55.0
1312	Crude petroleum	57	3	.5	3.3	.3	.6	2.0	51.8	26.8	63.3	15.4	(D)	(D)
1321	Natural gas liquids	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	44	12	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1381	Drilling oil and gas wells	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.5
1389	Oil and gas field services, n.e.c.	31	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	27	3	.3	1.6	.2	.5	1.4	3.7	2.5	5.4	.8	(NA)	(NA)
144	Sand and gravel	25	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.6
1442	Construction sand and gravel	25	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(Data withheld to avoid disclosing figures for individual companies)

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	North Dakota:													
	Establishments.....number..	166	161	67	-	21	46	24	-	23	1	4	66	5
	Employees.....1,000..	1.9	1.9	.5	-	.1	.4	.4	-	(D)	(D)	.1	.9	(Z)
	Value added in mining.mil.dol..	76.9	76.8	52.2	-	.9	51.3	7.2	-	(D)	(D)	6.7	10.7	.1
10	Metal mining:													
	Establishments.....number..	3	2	1	-	1	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	31	31	17	-	17	-	13	-	13	-	-	1	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	.3	-	.3	-	(D)	-	(D)	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	31	31	17	-	17	-	13	-	13	-	-	1	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	.3	-	.3	-	(D)	-	(D)	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	105	101	46	-	-	46	-	-	-	-	3	52	4
	Employees.....1,000..	1.3	(D)	.4	-	-	.4	-	-	-	-	(D)	.8	(D)
	Value added in mining.mil.dol..	67.6	(D)	51.3	-	-	51.3	-	-	-	-	(D)	9.5	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	58	54	46	-	-	46	-	-	-	-	-	8	4
	Employees.....1,000..	.5	(D)	.4	-	-	.4	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	51.8	(D)	51.3	-	-	51.3	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	3	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
138	Oil and gas field services:													
	Establishments.....number..	44	44	-	-	-	-	-	-	-	-	-	44	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	27	27	3	-	3	-	11	-	10	1	1	12	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	3.7	3.7	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	-
142	Crushed and broken stone:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	25	25	3	-	3	-	9	-	8	1	1	12	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	.1	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	1.6	(D)	(D)	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	166	187	Cost of supplies, total.....million dollars..	45.5	37.3
With 0 to 19 employees.....do....	142	164	Supplies used, minerals received for preparation, and purchased machinery.....do....	30.0	(NA)
With 20 to 99 employees.....do....	22	21	Cost of resales.....do....	.2	(NA)
With 100 or more employees.....do....	2	2	Purchased fuels consumed.....do....	2.0	(NA)
All employees (average for year).....1,000..	1.9	1.7	Electric energy:		
Payroll (all employees, total for year.....million dollars..	12.6	9.8	Quantity purchased.....million kw.-hrs..	52.5	(NA)
			Cost.....million dollars..	1.1	(NA)
			Generated less sold.....million kw.-hrs..	18.4	(NA)
			Contract work.....million dollars..	12.3	10.7
Production, development, and exploration workers:					
Average for the year.....1,000..	1.6	1.4	Value of shipments and receipts (including resales), total.....do....	102.8	93.1
March.....do....	1.4	(NA)	Value of resales.....do....	.2	(NA)
May.....do....	1.6	(NA)			
August.....do....	1.7	(NA)			
November.....do....	1.6	(NA)	Value added in mining.....do....	76.9	73.7
Man-hours.....millions..	3.3	2.8	Capital expenditures (except land and mineral rights), total.....do....	19.6	17.8
Wages.....million dollars..	10.1	7.6	Mineral development and exploration.....do....	5.2	4.8
			New structures and additions.....do....	1.1	13.1
Supplemental labor cost not included in payroll.....do..	1.4	(NA)	New machinery and equipment.....do....	11.0	
			Used plant and equipment.....do....	2.3	
Legally required expenditures, including Social Security contributions.....do..	.7	(NA)	Mineral development and exploration expenditures, total.....do....	9.9	(NA)
Payments for voluntary programs.....do..	.7	(NA)	Capitalized.....do....	5.2	4.8
			Expensed.....do....	4.7	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	North Dakota, total	166	24	1.9	12.6	1.6	3.3	10.1	76.9	45.5	102.8	19.6	1.7	73.7
	COUNTIES[2]													
	Burke county, total	33	2	.2	1.6	.2	.4	1.3	7.8	5.1	11.2	1.8	.3	16.9
13	Oil and gas extraction	30	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	10	1	.1	.7	.1	.2	.6	1.0	.5	1.4	.1	.1	1.9
	McKenzie county, total	23	5	.2	1.6	.2	.4	1.3	15.4	8.0	19.9	3.6	.2	18.5
13	Oil and gas extraction	23	5	.2	1.6	.2	.4	1.3	15.4	8.0	19.9	3.6	.2	18.5
138	Oil and gas field services	10	3	.2	1.1	.1	.3	1.0	1.7	1.0	2.5	.1	.1	1.4
	Mercer county, total	5	3	.2	1.1	.1	.3	.8	3.1	3.9	6.1	1.0	.1	1.9
12	Bituminous coal and lignite mining	5	3	.2	1.1	.1	.3	.8	3.1	3.9	6.1	1.0	(D)	(D)
121	Bituminous coal and lignite mining	5	3	.2	1.1	.1	.3	.8	3.1	3.9	6.1	1.0	(D)	(D)
	Stark county	16	3	.1	1.0	.1	.3	.9	4.4	2.6	3.7	3.3	.1	.4
	Williams county, total	33	7	.4	2.9	.3	.7	2.1	22.1	14.5	32.5	4.1	.4	20.0
13	Oil and gas extraction	33	7	.4	2.9	.3	.7	2.1	22.1	14.5	32.5	4.1	.4	20.0
131	Crude petroleum and natural gas	10	1	.2	1.2	.1	.2	.6	14.8	8.3	20.5	2.6	.1	14.7
138	Oil and gas field services	22	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation to Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
North Dakota, total	166	3	-	31	105	27
0 to 4 employees	98	2	-	18	67	11
5 to 9 employees	23	1	-	5	11	6
10 to 19 employees	21	-	-	3	11	7
20 to 49 employees	18	-	-	4	11	3
50 to 99 employees	4	-	-	1	3	-
100 to 249 employees	1	-	-	-	1	-
250 to 499 employees	1	-	-	-	1	-
Adams county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Billings county, total	13	1	-	-	12	-
0 to 19 employees	12	1	-	-	11	-
20 to 99 employees	1	-	-	-	1	-
Bottineau county, total	24	-	-	-	24	-
0 to 19 employees	22	-	-	-	22	-
20 to 99 employees	2	-	-	-	2	-
Bowman county, total	10	-	-	3	7	-
0 to 19 employees	10	-	-	3	7	-
Burke county, total	33	-	-	3	30	-
0 to 19 employees	31	-	-	2	29	-
20 to 99 employees	2	-	-	1	1	-
Burleigh county, total	10	-	-	1	8	1
0 to 19 employees	9	-	-	1	8	-
20 to 99 employees	1	-	-	-	-	1
Cass county, total	4	1	-	-	-	3
0 to 19 employees	4	1	-	-	-	3
Divide county, total	12	-	-	-	12	-
0 to 19 employees	12	-	-	-	12	-
Dunn county, total	6	-	-	-	6	-
0 to 19 employees	6	-	-	-	6	-
Eddy county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Foster county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Golden valley county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Grand forks county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Grant county, total	4	-	-	3	1	-
0 to 19 employees	4	-	-	3	1	-
Hettinger county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Logan county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
McHenry county, total	4	-	-	2	1	1
0 to 19 employees	3	-	-	1	1	1
20 to 99 employees	1	-	-	1	-	-
McIntosh county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
McKenzie county, total	23	-	-	-	23	-
0 to 19 employees	18	-	-	-	18	-
20 to 99 employees	5	-	-	-	5	-
McLean county, total	3	-	-	3	-	-
0 to 19 employees	3	-	-	3	-	-
Mercer county, total	5	-	-	5	-	-
0 to 19 employees	2	-	-	2	-	-
20 to 99 employees	3	-	-	3	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
North Dakota--Continued						
Morton county, total	9	-	-	6	2	1
0 to 19 employees	8	-	-	6	1	1
20 to 99 employees	1	-	-	-	1	-
Mountrail county, total	3	-	-	-	3	-
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	1	-
Nelson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Oliver county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Ransom county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Renville county, total	25	-	-	-	25	-
0 to 19 employees	24	-	-	-	24	-
20 to 99 employees	1	-	-	-	1	-
Richland county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Rolette county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Sargent county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Sioux county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Slope county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Stark county, total	16	-	-	2	12	2
0 to 19 employees	13	-	-	2	9	2
20 to 99 employees	3	-	-	-	3	-
Towner county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Traill county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Walsh county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Ward county, total	8	-	-	1	7	-
0 to 19 employees	8	-	-	1	7	-
Williams county, total	33	-	-	-	33	-
0 to 19 employees	26	-	-	-	26	-
20 to 99 employees	6	-	-	-	6	-
100 to 249 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.
[1]See table 5 footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

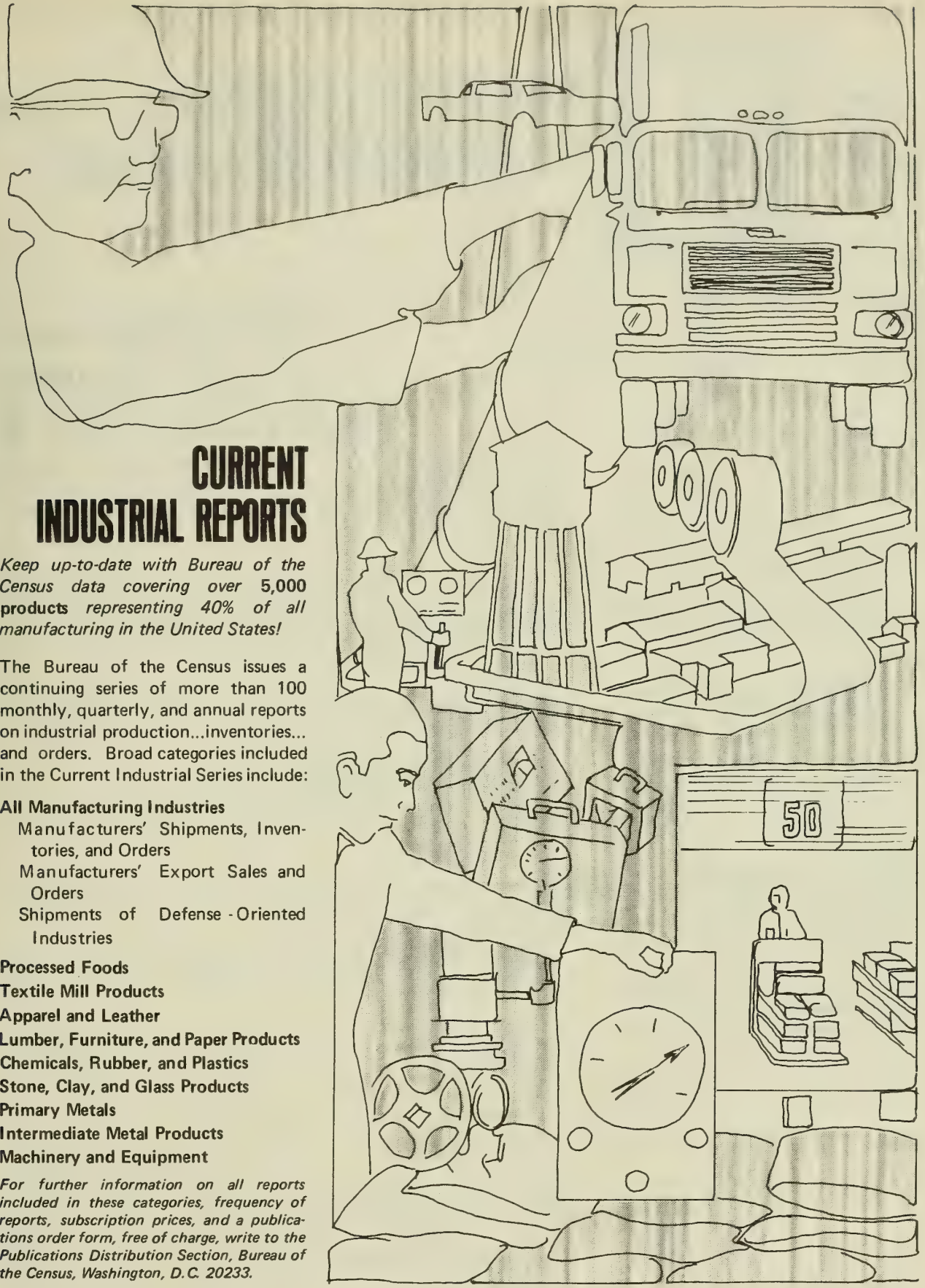
For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

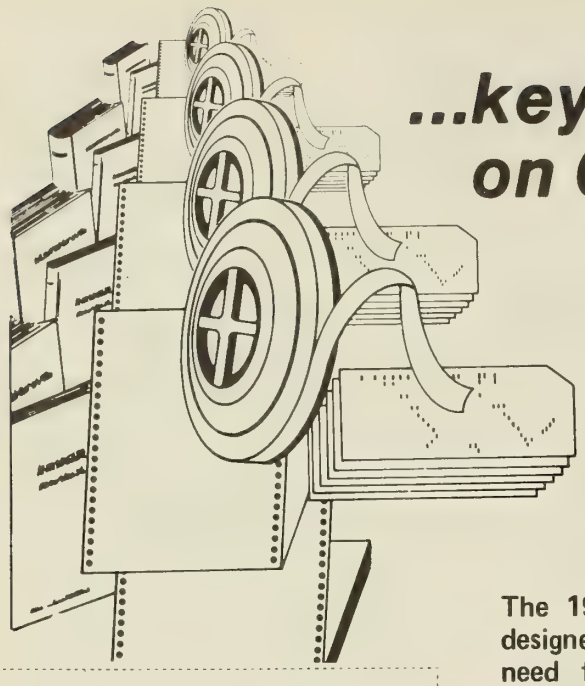
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-860

1967 CENSUS OF Mineral Industries



MIC67(2)-34

AREA STATISTICS

OHIO

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	12
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

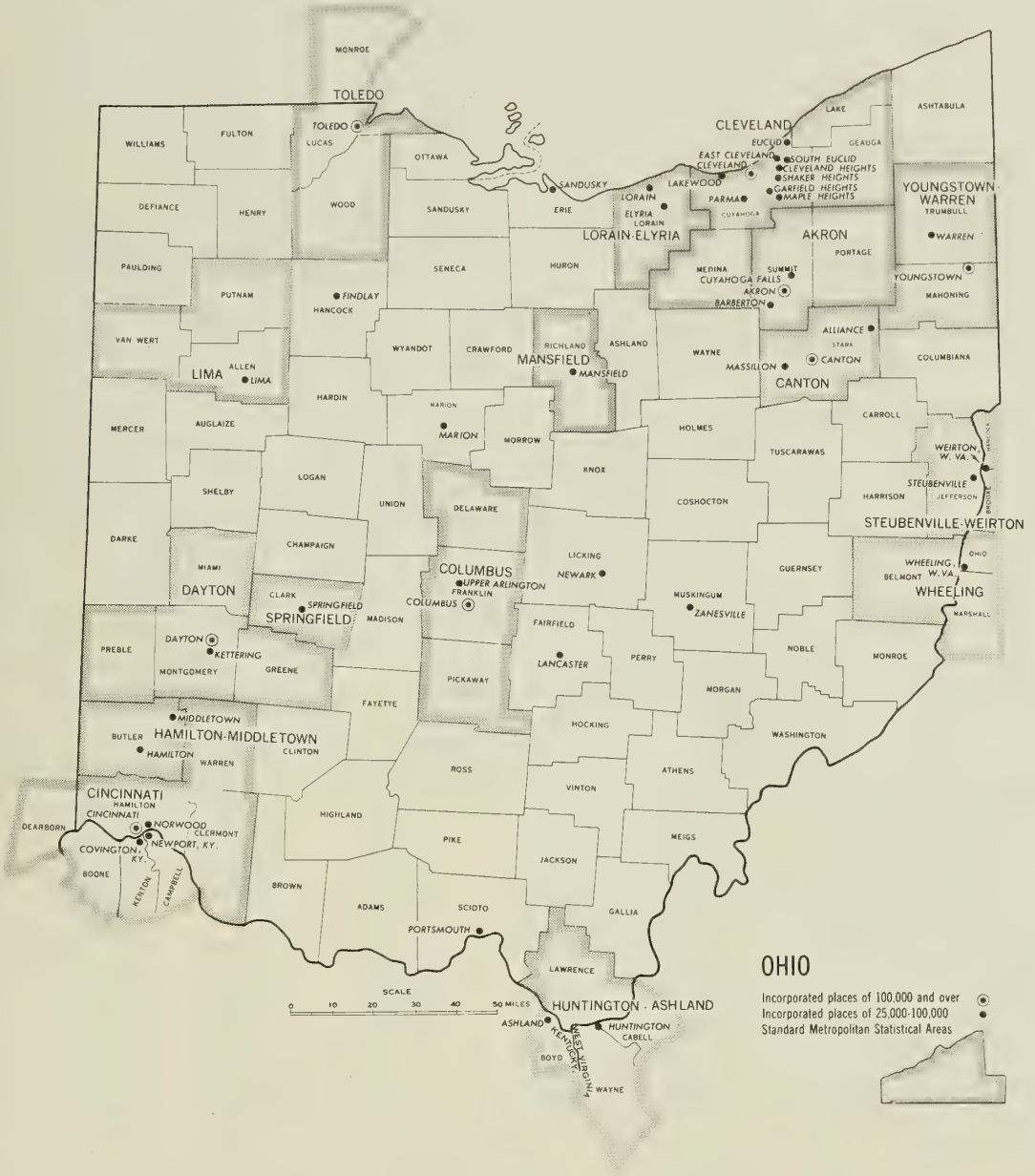
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1 General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,195	196	17.8	136.8	13.9	29.2	92.8	281.4
1963	[1]1,541	180	17.6	104.2	14.2	28.7	76.5	223.9
1958	1,436	187	20.8	108.3	15.9	29.8	73.4	191.3
1954	1,654	194	21.7	91.1	17.5	33.2	67.6	166.8
Including operations in manufactures:								
1967	1,280	208	18.7	141.6	14.7	30.9	97.5	297.3
1963	1,704	198	19.3	112.3	15.8	31.8	84.2	247.1
1958	1,599	210	22.3	115.0	17.4	32.7	79.9	213.6
1954[2]	1,793	220	23.7	98.8	19.5	37.2	74.9	185.0
1939[3]	[4]1,407	(NA)	27.3	33.9	24.9	41.3	28.7	51.9
1929								
1919[5]	2,289	(NA)	53.6	66.4	49.5	(NA)	58.3	107.0
1909[5]	1,952	(NA)	53.2	29.5	50.6	(NA)	26.8	47.1
1902[6]	[4]11,519	(NA)	39.5	25.6	[6]37.0	(NA)	23.1	43.8
Excluding oil and gas extraction industries:								
1967	805	187	16.0	125.5	12.5	27.0	86.5	261.3
1963	1,049	175	16.7	99.8	13.7	27.8	75.3	215.4
1958	1,012	202	18.3	95.4	15.1	28.5	71.8	190.1
1954[2]	1,134	201	19.5	83.2	17.1	33.2	68.6	167.5
1939[3]	[4]1,122	(NA)	24.6	30.0	22.9	37.8	26.4	43.3
1929[8]	801	(NA)	28.3	34.5	27.0	(NA)	31.4	49.5
1919[5]	951	(NA)	47.1	57.9	44.3	(NA)	52.0	74.0
1909[5]	750	(NA)	46.8	25.4	45.2	(NA)	23.6	29.9
1902[6]	[4]1,100	(NA)	34.1	21.4	[7]32.3	(NA)	19.8	30.0

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]150.3	([10])	21.9	([10])	401.3	52.3	(NA)
1963	70.1	22.7	16.9	31.1	318.8	45.8	4.2
1958	62.4	29.6	12.8	19.2	286.3	29.1	2.9
1954	44.1	[11]10.7	11.2	19.7	228.0	24.6	2.7
Including operations in manufactures:							
1967	[12](D)	[12](D)	[12](D)	[12](D)	421.7	(D)	(NA)
1963	[13]76.5	22.7	[13]16.9	[14]31.1	348.4	[14]45.9	[14]4.2
1958	[13]67.5	29.6	[13]12.8	[14]19.2	313.7	[14]29.1	[14]2.9
1954[2]	[13]48.0	[11]10.7	[13]11.2	[14]19.8	250.0	[14]24.8	[14]2.8
1939[3]	10.8	(NA)	1.5	(NA)	64.2	(NA)	2.7
1929							
1919[5]	20.5	[15]3.1	3.9	(NA)	134.5	(NA)	[16]8.3
1909[5]	8.3	[15]5.4	3.0	(NA)	63.7	(NA)	(NA)
1902[6]	9.9	(NA)	2.7	(NA)	56.5	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	(D)	(NA)	(NA)	(NA)	371,5	(NA)	(NA)
1963	[13]68.4	22.7	[13]6.7	[14]27.9	306.8	[14]34.3	[14]3.7
1958	[17]88.7	([14])	[13]5.9	[14]16.1	280.7	[14]20.1	[14]2.9
1954[2]	[17]53.8	([14])	[13]5.2	[14]16.3	227.0	[14]15.9	[14]2.5
1939[3]	10.0	(NA)	.6	(NA)	53.8	(NA)	2.2
1929[8]	10.4	(NA)	.2	2.2	60.1	(NA)	3.0
1919[5]	14.5	-	.5	(NA)	89.0	(NA)	[16]6.6
1909[5]	4.1	-	.1	(NA)	34.1	(NA)	(NA)
1902[6]	3.3	(NA)	.1	(NA)	33.4	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Ohio--Continued

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 228 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing sandstone at such operations was $159 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for limestone is not available.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand, gravel, common clay, and shale operations, and stone quarries operated as parts of cement and lime plants. In 1939, the value of products of common clay and shale operations was $1,368 thousand. In 1929, the value of products was $11,339 thousand. For "Excluding oil and gas extraction operations," includes data for nonproducing oil and gas extraction establishments; there were 5 such operations in 1919 and 7 in 1909.

[6]Excludes data for sand, gravel, common clay, and shale operations; and stone quarries at 7 cement plants. Includes data for lime plants producing lime valued at $1,082 thousand, and includes data for lime plants and nonproducing establishments in the Crude Petroleum and Natural Gas Industry.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes data for common clay and shale operations and one nonproducing operation. The value of products of such operations in 1939 was $1,368 thousand.

[9]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[15]Represents natural gas purchased as a material and for resale.

[16]Excludes purchased electric energy. For "All operations" in 1939, and also for "Excluding oil and gas extraction" in 1929, the quantity of purchased electric energy amounted to only 4 percent of the total kw.-hrs. equivalent of energy used.

[17]Costs of minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electric energy. See also footnote 10.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,195	196	17.8	136.8	13.9	29.2	92.8	281.4	172.2	401.3	52.3	17.6	223.9
10	Metal mining	8	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1011	Iron ores	5	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	264	85	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	8.5	107.1
121	Bituminous coal and lignite mining	264	85	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	8.5	107.1
1211	Bituminous coal	251	83	8.3	66.5	6.8	14.3	50.5	135.0	(D)	211.6	(D)	8.3	104.9
1213	Bituminous and lignite mining service, n.e.c.	13	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.3
13	Oil and gas extraction	475	21	2.7	16.1	2.2	3.9	11.0	36.0	27.4	50.2	13.3	2.6	31.7
131	Crude petroleum and natural gas	264	8	1.2	7.5	.7	1.1	3.2	16.0	15.6	21.1	10.5	1.6	20.8
1312	Crude petroleum	210	6	.9	6.1	.6	.9	2.2	11.6	12.5	15.9	8.1	1.3	15.6
1313	Natural gas	54	2	.3	1.4	.2	.3	1.0	4.4	3.1	5.1	2.4	.3	5.3
138	Oil and gas field services	211	13	1.5	8.6	1.5	2.8	7.8	20.1	11.8	29.1	2.8	1.0	10.9
138	Drilling oil and gas wells	135	8	1.1	6.2	1.1	2.0	5.8	12.7	7.6	18.5	1.8	.8	9.7
1389	Oil and gas field services, n.e.c.	69	5	.4	2.2	.3	.7	1.8	7.0	4.1	10.1	.9	.1	.8
14	Nonmetallic minerals, except fuels	448	87	6.0	40.5	4.9	10.7	30.5	107.9	48.6	136.2	20.3	(NA)	(NA)
141	Dimension stone	15	-	.1	.4	.1	.1	.2	.6	.1	.7	(Z)	(NA)	(NA)
1419	Dimension stone, n.e.c.	14	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	115	38	2.6	17.5	2.1	4.7	12.7	42.8	24.1	56.9	10.0	2.7	35.6
1422	Crushed and broken limestone	105	36	2.4	16.0	2.0	4.5	12.4	41.0	23.0	54.2	9.8	2.6	34.6
1429	Crushed and broken stone, n.e.c.	10	2	.2	1.5	(Z)	.2	.3	1.8	1.1	2.7	.2	.1	.9
144	Sand and gravel	278	41	2.5	16.9	2.1	4.4	13.1	42.7	16.6	54.1	5.1	2.5	37.1
1442	Construction sand and gravel	261	36	2.3	15.1	1.9	3.9	11.6	38.3	14.5	48.2	4.7	(NA)	(NA)
1443	Glass sand	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1444	Molding sand	12	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
145	Clay and related minerals	24	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.1
1453	Fire clay	15	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	8	2	.1	.6	.1	.1	.4	1.6	1.1	2.6	.1	(NA)	(NA)
147	Chemical and fertilizer minerals	4	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	85	12	0.9	4.8	0.8	1.7	4.7	15.9	(D)	20.4	(D)	1.6	23.2
142	Crushed and broken stone (limestone)	16	8	0.3	1.9	0.3	0.6	1.9	7.2	2.1	9.3	(NA)	0.5	8.5
144	Sand and gravel	12	1	0.1	0.4	0.1	0.2	0.4	1.9	0.2	2.1	(NA)	0.1	2.1
145	Clay and related minerals	53	-	0.2	1.0	0.2	0.4	1.0	2.8	1.6	4.4	(NA)	0.5	7.8

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Ohio:													
	Establishments.....number..	1,195	1,179	299	110	92	97	333	23	274	36	15	532	16
	Employees.....1,000..	17.8	17.8	3.4	1.1	1.1	1.1	9.9	3.1	5.6	1.2	.3	4.2	.1
	Value added in mining..mil.dol..	281.4	281.4	66.7	14.4	27.9	24.4	178.8	55.7	97.8	25.4	5.7	30.1	(Z)
10	Metal mining:													
	Establishments.....number..	8	8	2	-	2	-	1	-	-	1	1	4	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	-	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	-	(D)	(D)	(D)	-
1011	Iron ores:													
	Establishments.....number..	5	5	1	-	1	-	-	-	-	-	-	4	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
1021	Copper ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	1	-	-	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	-	(D)	-	-	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	264	264	151	109	34	8	82	19	45	18	5	26	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.7	1.4	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	(D)	(D)	39.3	25.1	(D)	(D)	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	264	264	151	109	34	8	82	19	45	18	5	26	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.7	1.4	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	(D)	(D)	39.3	25.1	(D)	(D)	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	475	465	85	-	-	85	-	-	-	-	-	380	10
	Employees.....1,000..	2.7	2.7	.8	-	-	.8	-	-	-	-	-	1.9	(Z)
	Value added in mining..mil.dol..	36.0	36.2	13.8	-	-	13.8	-	-	-	-	-	22.4	-.1
131	Crude petroleum and natural gas:													
	Establishments.....number..	264	254	85	-	-	85	-	-	-	-	-	169	10
	Employees.....1,000..	1.2	1.2	.8	-	-	.8	-	-	-	-	-	.4	(Z)
	Value added in mining..mil.dol..	16.0	16.1	13.8	-	-	13.8	-	-	-	-	-	2.3	-.1
138	Oil and gas field services:													
	Establishments.....number..	211	211	-	-	-	-	-	-	-	-	-	211	-
	Employees.....1,000..	1.5	1.5	-	-	-	-	-	-	-	-	-	1.5	-
	Value added in mining..mil.dol..	20.1	20.1	-	-	-	-	-	-	-	-	-	20.1	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	448	442	61	1	56	4	250	4	229	17	9	122	6
	Employees.....1,000..	6.0	5.9	.4	(D)	.3	(D)	4.9	.4	4.1	.4	.1	.6	(Z)
	Value added in mining..mil.dol..	107.9	107.8	6.4	(D)	5.8	(D)	94.1	16.3	72.7	5.1	1.8	5.5	.2
141	Dimension stone:													
	Establishments.....number..	15	15	11	-	11	-	3	-	3	-	-	1	-
	Employees.....1,000..	.1	.1	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	.6	.6	.3	-	.3	-	(D)	-	(D)	-	-	(D)	-
142	Crushed and broken stone:													
	Establishments.....number..	115	113	4	-	4	-	101	2	98	1	4	4	2
	Employees.....1,000..	2.6	(D)	(D)	-	(D)	-	2.3	(D)	(D)	(D)	(Z)	(D)	(D)
	Value added in mining..mil.dol..	42.8	(D)	(D)	-	(D)	-	39.3	(D)	(D)	(D)	1.1	(D)	(D)

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Ohio--Continued													
14	Nonmetallic minerals, except fuels--Continued													
144	Sand and gravel:													
	Establishments.....number..	278	274	24	-	20	4	137	-	121	16	4	109	4
	Employees.....1,000..	2.5	(D)	(D)	-	(D)	(D)	1.9	-	(D)	(D)	(D)	.5	(D)
	Value added in mining.mil.dol..	42.7	(D)	(D)	-	(D)	(D)	34.7	-	(D)	(D)	(D)	4.8	(D)
145	Clay and related minerals:													
	Establishments.....number..	24	24	16	-	16	-	7	-	7	-	-	1	-
	Employees.....1,000..	(D)	(D)	.1	-	.1	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	1.1	-	1.1	-	(D)	-	(D)	-	-	(D)	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	4	4	1	1	-	-	2	2	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining.mil.dol..	.7	.7	-	-	-	-	-	-	-	-	-	.7	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	5	5	5	-	5	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	.1	.1	.1	-	.1	-	-	-	-	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,195	1,541	Cost of supplies, total.....million dollars..	172.2	140.8
With 0 to 19 employees.....do....	998	1,361	Supplies used, minerals received for preparation, and purchased machinery.....do....	131.1	(NA)
With 20 to 99 employees.....do....	167	158	Cost of resales.....do....	2.3	
With 100 or more employees.....do....	30	22	Purchased fuels consumed.....do....	8.9	(NA)
All employees (average for year).....1,000..	18.0	17.6	Electric energy:		
			Quantity purchased.....million kw.-hrs..	573.0	(NA)
Payroll (all employees), total for year.....million dollars..	139.4	104.2	Cost.....million dollars..	8.0	(NA)
			Generated less sold.....million-kw.-hrs..	1.3	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	21.9	16.9
Average for the year.....1,000..	13.9	14.2	Value of shipments and receipts (including resales), total.....do....	401.3	318.8
March.....do....	13.4	(NA)	Value of resales.....do....	2.7	(NA)
May.....do....	13.9	(NA)			
August.....do....	14.3	(NA)			
November.....do....	14.1	(NA)	Value added in mining.....do....	281.4	223.9
Man-hours.....millions..	29.2	28.7	Capital expenditures (except land and mineral rights), total.....do....	52.3	45.8
Wages.....million dollars..	92.8	76.5	Mineral development and exploration.....do....	7.6	7.5
			New structures and additions.....do....	8.6	
Supplemental labor cost not included in payroll.....do..	18.2	(NA)	New machinery and equipment.....do....	32.3	38.4
			Used plant and equipment.....do....	3.9	
Legally required expenditures, including Social Security contributions.....do..	7.4	(NA)	Mineral development and exploration expenditures, total.....do....	13.1	(NA)
Payments for voluntary programs.....do..	10.8	(NA)	Capitalized.....do....	7.6	7.5
			Expensed.....do....	5.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Ohio, total	1,195	196	17.8	136.8	13.9	29.2	92.8	281.4	172.2	401.3	52.3	17.6	223.9
	COUNTIES[2]													
	Allen county, total	10	2	.1	.7	.1	.2	.6	1.9	.6	2.3	.3	.1	1.1
14	Nonmetallic minerals, except fuels	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Athens county, total	37	3	.2	.9	.2	.3	.7	2.5	2.5	4.7	.3	.2	2.0
12	Bituminous coal and lignite mining	17	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.2
121	Bituminous coal and lignite mining	17	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Belmont county, total	38	16	2.2	18.2	2.0	4.2	15.2	40.0	18.9	53.1	5.8	1.5	23.1
12	Bituminous coal and lignite mining	29	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	23.1
121	Bituminous coal and lignite mining	29	16	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Butler county, total	6	3	.1	.8	.1	.2	.6	2.6	.6	3.1	.1	.1	2.2
14	Nonmetallic minerals, except fuel	6	3	.1	.8	.1	.2	.6	2.6	.6	3.1	.1	(D)	(D)
144	Sand and gravel	6	3	.1	.8	.1	.2	.6	2.6	.6	3.1	.1	(D)	(D)
	Columbiana county, total	44	4	.3	1.6	.2	.5	1.4	3.5	2.4	5.3	.6	.4	5.4
12	Bituminous coal and lignite mining	21	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.9
121	Bituminous coal and lignite mining	21	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Coshocton county, total	41	6	.4	2.8	.3	.6	2.5	10.6	4.8	14.7	.7	.5	8.9
12	Bituminous coal and lignite mining	10	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	6.6
121	Bituminous coal and lignite mining	10	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cuyahoga county, total	39	12	1.5	20.2	.3	.8	2.4	11.4	7.1	14.2	4.4	1.1	5.1
10	Metal mining	5	3	.7	12.6	(Z)	(Z)	(Z)	-	(Z)	-	(Z)	(D)	(D)
101	Iron ores	4	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	9	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	9	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	13	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.6
147	Chemical and fertilizer minerals	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Erie county, total	6	2	.1	.9	.1	.2	.6	3.1	1.2	3.8	.4	(D)	(D)
14	Nonmetallic minerals, except fuel	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Franklin county, total	39	3	.6	3.4	.4	1.0	2.2	7.7	2.8	9.6	.9	.7	8.7
14	Nonmetallic minerals, except fuel	19	3	.5	2.9	.4	.9	2.0	7.6	2.6	9.4	.7	.6	8.5
142	Crushed and broken stone	4	1	.3	1.4	.3	.6	1.0	2.5	1.2	3.5	.3	(D)	(D)
144	Sand and gravel	15	2	.2	1.5	.2	.3	1.0	5.1	1.4	6.0	.4	(D)	(D)
	Geauga county, total	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Ohio--Continued													
	COUNTIES[2]--Continued													
	Hamilton county, total	24	9	.4	2.6	.4	.7	1.9	6.9	4.4	10.4	.9	.4	6.9
12	Bituminous coal and lignite mining	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	17	7	.3	1.8	.2	.5	1.4	5.2	1.9	6.6	.5	(D)	(D)
144	Sand and gravel	15	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	4.5
	Hancock county, total	6	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Harrison county, total	19	10	2.1	17.8	1.5	3.3	12.8	32.7	31.3	58.2	5.7	2.1	26.6
12	Bituminous coal and lignite mining	16	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	16	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hocking county,	33	-	.1	.6	.1	.2	.4	1.4	.9	2.0	.2	.1	2.2
	Holmes county	29	3	.2	1.0	.1	.3	.8	2.1	.8	2.4	.5	.3	2.9
	Jackson county, total	20	4	.2	1.2	.2	.4	.9	3.7	2.2	5.4	.5	.2	2.1
12	Bituminous coal and lignite mining	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.0
121	Bituminous coal and lignite mining	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.0
	Jefferson county, total	34	13	.9	7.0	.8	1.8	6.0	15.3	10.0	24.0	1.2	.9	12.0
12	Bituminous coal and lignite mining	30	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	30	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Knox county, total	51	3	.2	.9	.2	.3	.8	2.1	1.1	2.6	.7	.1	1.5
13	Oil and gas extraction	42	2	.1	.6	.1	.2	.5	1.5	.7	1.7	.5	.1	.9
	Lake county, total	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Licking county, total	52	2	.3	1.6	.3	.6	1.3	4.0	3.1	5.9	1.2	.3	2.7
13	Oil and gas extraction	42	1	.2	1.2	.2	.4	.9	3.0	2.8	4.6	1.1	.2	2.3
131	Crude petroleum and natural gas	22	-	.1	.5	.1	.1	.3	.9	1.7	1.8	.8	.2	1.6
138	Oil and gas field services	20	1	.1	.7	.1	.2	.6	2.1	1.1	2.8	.3	.1	.7
	Lucas county, total	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.6
14	Nonmetallic minerals, except fuel	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.6
142	Crushed and broken stone	4	3	.1	1.1	.1	.2	.5	2.4	.9	2.7	.6	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Ohio--Continued													
	COUNTIES[2]--Continued													
	Mahoning county, total.....	18	4	.2	1.6	.2	.4	1.2	3.3	1.4	4.4	.3	.5	6.5
14	Nonmetallic minerals, except fuel.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Medina county,.....	22	1	.1	.8	.1	.1	.5	1.6	.8	2.0	.4	.1	2.3
	Miami county, total.....	8	1	.1	.8	.1	.2	.6	1.5	1.2	1.9	.8	.1	.9
14	Nonmetallic minerals, except fuel.....	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.9
	Montgomery county, total.....	27	3	.2	1.5	.2	.4	1.1	3.5	1.3	4.3	.4	.2	3.3
14	Nonmetallic minerals, except fuel.....	24	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.3
144	Sand and gravel.....	20	3	.2	1.1	.1	.3	.9	2.7	.9	3.2	.4	(D)	(D)
	Morgan county, total.....	18	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Morrow county, total.....	43	2	.2	1.2	.2	.4	1.0	6.0	2.3	7.5	.7	.2	3.8
13	Oil and gas extraction.....	43	2	.2	1.2	.2	.4	1.0	6.0	2.3	7.5	.7	(D)	(D)
138	Oil and gas field services...	28	1	.1	.9	.1	.3	.8	1.6	.9	2.2	.3	(D)	(D)
	Muskingum county, total.....	48	6	.4	2.3	.3	.7	1.9	5.6	2.3	6.9	1.0	.3	3.8
13	Oil and gas extraction.....	29	2	.2	1.0	.2	.4	.9	2.4	1.0	2.8	.6	.1	1.5
138	Oil and gas field services...	15	1	.1	.7	.1	.3	.7	1.8	.8	2.2	.4	(Z)	.8
14	Nonmetallic minerals, except fuel.....	8	4	.1	.9	.1	.2	.7	2.5	1.0	3.2	.3	.1	1.9
	Noble county, total.....	14	4	.3	2.5	.2	.5	2.2	3.6	5.9	9.1	.4	.2	3.5
12	Bituminous coal and lignite mining.....	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.1
121	Bituminous coal and lignite mining.....	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.1
	Ottawa county, total.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Perry county, total.....	53	4	.5	3.7	.4	.9	3.2	9.2	5.0	12.9	1.3	.5	9.2
12	Bituminous coal and lignite mining.....	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.7
121	Bituminous coal and lignite mining.....	11	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.7
13	Oil and gas extraction.....	39	1	.1	.8	.1	.2	.7	1.9	1.4	2.6	.7	(D)	(D)
138	Oil and gas field services...	20	1	.1	.6	.1	.2	.6	1.2	.6	1.6	.2	(D)	(D)
	Portage county, total.....	36	2	.3	1.8	.3	.5	1.6	4.5	3.0	6.2	1.4	.3	5.8
13	Oil and gas extraction.....	14	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.3
138	Oil and gas field services...	6	1	.1	.6	.1	.2	.5	.4	1.3	1.6	.2	.1	1.3
14	Nonmetallic minerals, except fuel.....	21	1	.2	1.1	.2	.3	1.0	3.3	1.1	3.8	.5	(D)	(D)
144	Sand and gravel.....	18	1	.2	1.1	.2	.3	1.0	3.1	1.1	3.7	.5	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Ohio--Continued													
	COUNTIES[2]--Continued													
	Richland county	6	2	.1	.6	.1	.2	.5	1.8	1.2	2.8	.1	.1	.8
	Stark county, total	69	8	.5	3.0	.4	.7	2.4	6.4	6.8	9.1	4.0	.4	5.3
12	Bituminous coal and lignite mining	8	2	.1	.6	.1	.2	.5	1.1	.5	1.5	.1	.2	1.6
121	Bituminous coal and lignite mining	8	2	.1	.6	.1	.2	.5	1.1	.5	1.5	.1	(D)	(D)
13	Oil and gas extraction	43	2	.2	1.2	.2	.3	.9	2.5	5.2	4.2	3.6	.1	.6
138	Oil and gas field services	14	2	.2	.8	.1	.2	.7	1.6	1.0	2.3	.3	(Z)	.3
14	Nonmetallic minerals, except fuel	18	4	.2	1.2	.1	.3	1.0	2.8	1.1	3.5	.4	.2	3.1
144	Sand and gravel	12	3	.1	.8	.1	.2	.7	2.0	.6	2.3	.2	.1	1.9
	Summit county, total	27	1	.3	2.2	.2	.5	1.7	4.0	1.9	4.9	1.0	.3	3.9
14	Nonmetallic minerals, except fuel	15	1	.3	2.1	.2	.4	1.6	3.5	1.5	4.4	.6	.3	3.5
142	Crushed and broken stone	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Tuscarawas county, total	70	10	.8	5.7	.7	1.6	4.9	13.8	5.5	17.2	2.2	.7	8.1
12	Bituminous coal and lignite mining	34	9	.7	4.6	.6	1.4	4.0	10.0	4.2	13.0	1.2	.6	5.9
121	Bituminous coal and lignite mining	34	9	.7	4.6	.6	1.4	4.0	10.0	4.2	13.0	1.2	(D)	(D)
14	Nonmetallic minerals, except fuel	21	1	.1	.9	.1	.2	.7	3.2	.9	3.5	.5	.1	1.5
	Washington county, total	96	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.2
13	Oil and gas extraction	92	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.9
131	Crude petroleum and natural gas	71	1	.2	.5	.1	.1	.3	5.6	.5	5.6	.6	.1	1.5
	Wayne county, total	40	3	.3	1.7	.3	.5	1.5	4.4	1.8	5.6	.6	.2	3.4
13	Oil and gas extraction	33	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.6
138	Oil and gas field services	17	2	.2	.9	.1	.3	.9	2.5	1.3	3.4	.3	.1	1.3
	Wyandot county, total	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.1
14	Nonmetallic minerals, except fuel	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.9
142	Crushed and broken stone	4	2	.2	1.1	.2	.3	.9	3.7	1.1	4.4	.4	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Ohio, total	1,195	8	-	264	475	448
0 to 4 employees	637	4	-	103	351	179
5 to 9 employees	195	-	-	33	69	93
10 to 19 employees	166	1	-	43	33	89
20 to 49 employees	134	-	-	51	13	70
50 to 99 employees	33	-	-	15	7	11
100 to 249 employees	22	2	-	14	1	5
250 to 499 employees	8	1	-	5	1	1
Adams county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Allen county, total	10	-	-	-	3	7
0 to 19 employees	8	-	-	-	3	5
20 to 99 employees	2	-	-	-	-	2
Ashland county, total	14	-	-	-	12	2
0 to 19 employees	14	-	-	-	12	2
Ashtabula county, total	12	-	-	-	5	7
0 to 19 employees	11	-	-	-	5	6
20 to 99 employees	1	-	-	-	-	1
Athens county, total	37	-	-	17	17	3
0 to 19 employees	34	-	-	15	17	2
20 to 99 employees	3	-	-	2	-	1
Auglaize county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Belmont county, total	38	-	-	29	5	4
0 to 19 employees	22	-	-	13	5	4
20 to 99 employees	10	-	-	10	-	-
100 to 249 employees	4	-	-	4	-	-
250 employees and over	2	-	-	2	-	-
Brown county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Butler county, total	6	-	-	-	-	6
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	3
Carroll county, total	11	-	-	5	6	-
0 to 19 employees	10	-	-	4	6	-
20 to 99 employees	1	-	-	1	-	-
Champaign county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Clark county, total	9	-	-	-	-	9
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	2	-	-	-	-	2
Clermont county, total	6	-	-	1	-	5
0 to 19 employees	6	-	-	1	-	5
Clinton county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Columbiana county, total	44	-	-	21	14	9
0 to 19 employees	40	-	-	18	14	8
20 to 99 employees	4	-	-	3	-	1
Coshocton county, total	41	-	-	10	20	11
0 to 19 employees	35	-	-	5	20	10
20 to 99 employees	6	-	-	5	-	1
Crawford county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Ohio--Continued						
Cuyahoga county, total	39	5	-	9	12	13
0 to 19 employees	27	2	-	4	11	10
20 to 99 employees	7	-	-	4	1	2
100 to 249 employees	4	2	-	1	-	1
250 employees and over	1	1	-	-	-	-
Darke county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Defiance county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Delaware county, total	7	-	-	-	3	4
0 to 19 employees	6	-	-	-	3	3
20 to 99 employees	1	-	-	-	-	1
Erie county, total	6	-	-	-	3	3
0 to 19 employees	4	-	-	-	3	1
20 to 99 employees	2	-	-	-	-	2
Fairfield county, total	17	-	-	-	15	2
0 to 19 employees	17	-	-	-	15	2
Fayette county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Franklin county, total	39	1	-	5	14	19
0 to 19 employees	36	1	-	5	14	16
20 to 99 employees	2	-	-	-	-	2
250 employees and over	1	-	-	-	-	1
Gallia county, total	9	-	-	6	1	2
0 to 19 employees	9	-	-	6	1	2
Geauga county, total	6	-	-	-	1	5
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	-	2
Greene county, total	7	-	-	-	-	7
0 to 19 employees	7	-	-	-	-	7
Guernsey county, total	21	-	-	5	16	-
0 to 19 employees	19	-	-	3	16	-
20 to 99 employees	2	-	-	2	-	-
Hamilton county, total	24	2	-	4	1	17
0 to 19 employees	15	2	-	2	1	10
20 to 99 employees	9	-	-	2	-	7
Hancock county, total	6	-	-	-	1	5
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	1	-	-	-	1	-
Hardin county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Harrison county, total	19	-	-	16	2	1
0 to 19 employees	9	-	-	6	2	1
20 to 99 employees	4	-	-	4	-	-
100 to 249 employees	3	-	-	3	-	-
250 employees and over	3	-	-	3	-	-
Henry county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Highland county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Hocking county, total	33	-	-	3	29	1
0 to 19 employees	33	-	-	3	29	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Ohio--Continued						
Holmes county, total	29	-	-	3	17	9
0 to 19 employees	26	-	-	3	15	8
20 to 99 employees	3	-	-	-	2	1
Huron county, total	13	-	-	-	11	2
0 to 19 employees	13	-	-	-	11	2
Jackson county, total	20	-	-	11	2	7
0 to 19 employees	16	-	-	8	2	6
20 to 99 employees	4	-	-	3	-	1
Jefferson county, total	34	-	-	30	4	-
0 to 19 employees	21	-	-	17	4	-
20 to 99 employees	11	-	-	11	-	-
100 to 249 employees	2	-	-	2	-	-
Knox county, total	51	-	-	-	42	9
0 to 19 employees	48	-	-	-	40	8
20 to 99 employees	3	-	-	-	2	1
Lake county, total	7	-	-	-	1	6
0 to 19 employees	6	-	-	-	1	5
100 to 249 employees	1	-	-	-	-	1
Lawrence county, total	8	-	-	2	3	3
0 to 19 employees	5	-	-	-	3	2
20 to 99 employees	3	-	-	2	-	1
Licking county, total	52	-	-	1	42	9
0 to 19 employees	50	-	-	1	41	8
20 to 99 employees	2	-	-	-	1	1
Logan county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Lorain county, total	12	-	-	-	10	2
0 to 19 employees	11	-	-	-	10	1
20 to 99 employees	1	-	-	-	-	1
Lucas county, total	11	-	-	-	2	9
0 to 19 employees	8	-	-	-	2	6
20 to 99 employees	3	-	-	-	-	3
Madison county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Mahoning county, total	18	-	-	7	8	3
0 to 19 employees	14	-	-	5	7	2
20 to 99 employees	4	-	-	2	1	1
Marion county, total	8	-	-	-	5	3
0 to 19 employees	7	-	-	-	5	2
20 to 99 employees	1	-	-	-	-	1
Medina county, total	22	-	-	-	17	5
0 to 19 employees	21	-	-	-	16	5
20 to 99 employees	1	-	-	-	1	-
Meigs county, total	11	-	-	4	6	1
0 to 19 employees	9	-	-	3	6	-
20 to 99 employees	2	-	-	1	-	1
Mercer county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Miami county, total	8	-	-	-	2	6
0 to 19 employees	7	-	-	-	2	5
20 to 99 employees	1	-	-	-	-	1
Monroe county, total	32	-	-	-	30	2
0 to 19 employees	31	-	-	-	30	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Ohio--Continued						
Montgomery county, total	27	-	-	-	3	24
0 to 19 employees	24	-	-	-	3	21
20 to 99 employees	3	-	-	-	-	3
Morgan county, total	18	-	-	1	14	3
0 to 19 employees	17	-	-	-	14	3
100 to 249 employees	1	-	-	1	-	-
Morrow county, total	43	-	-	-	43	-
0 to 19 employees	41	-	-	-	41	-
20 to 99 employees	2	-	-	-	2	-
Muskingum county, total	48	-	-	11	29	8
0 to 19 employees	42	-	-	11	27	4
20 to 99 employees	6	-	-	-	2	4
Noble county, total	14	-	-	4	7	3
0 to 19 employees	10	-	-	1	7	2
20 to 99 employees	3	-	-	2	-	1
100 to 249 employees	1	-	-	1	-	-
Ottawa county, total	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Paulding county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Perry county, total	53	-	-	11	39	3
0 to 19 employees	49	-	-	9	38	2
20 to 99 employees	3	-	-	1	1	1
100 to 249 employees	1	-	-	1	-	-
Pickaway county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
Pike county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Portage county, total	36	-	-	1	14	21
0 to 19 employees	34	-	-	1	13	20
20 to 99 employees	2	-	-	-	1	1
Preble county, total	6	-	-	-	-	6
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	1	-	-	-	-	1
Putnam county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Richland county, total	6	-	-	-	2	4
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	2	-	-	-	1	1
Ross county, total	6	-	-	-	-	6
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	2	-	-	-	-	2
Sandusky county, total	8	-	-	-	4	4
0 to 19 employees	7	-	-	-	4	3
20 to 99 employees	1	-	-	-	-	1
Scioto county, total	7	-	-	-	1	6
0 to 19 employees	6	-	-	-	1	5
20 to 99 employees	1	-	-	-	-	1
Seneca county, total	4	-	-	-	2	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	2	-	-	-	1	1
Shelby county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Ohio--Continued						
Stark county, total	69	-	-	8	43	18
0 to 19 employees	61	-	-	6	41	14
20 to 99 employees	8	-	-	2	2	4
Summit county, total	27	-	-	1	11	15
0 to 19 employees	26	-	-	1	11	14
100 to 249 employees	1	-	-	-	-	1
Trumbull county, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1
Tuscarawas county, total	70	-	-	34	15	21
0 to 19 employees	60	-	-	25	15	20
20 to 99 employees	9	-	-	8	-	1
100 to 249 employees	1	-	-	1	-	-
Union county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Van Wert county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Vinton county, total	8	-	-	3	4	1
0 to 19 employees	8	-	-	3	4	1
Warren county, total	8	-	-	-	-	8
0 to 19 employees	8	-	-	-	-	8
Washington county, total	96	-	-	1	92	3
0 to 19 employees	95	-	-	1	91	3
20 to 99 employees	1	-	-	-	1	-
Wayne county, total	40	-	-	1	33	6
0 to 19 employees	37	-	-	-	31	6
20 to 99 employees	3	-	-	1	2	-
Williams county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Wood county, total	8	-	-	-	2	6
0 to 19 employees	7	-	-	-	2	5
20 to 99 employees	1	-	-	-	-	1
Wyandot county, total	7	-	-	-	1	6
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

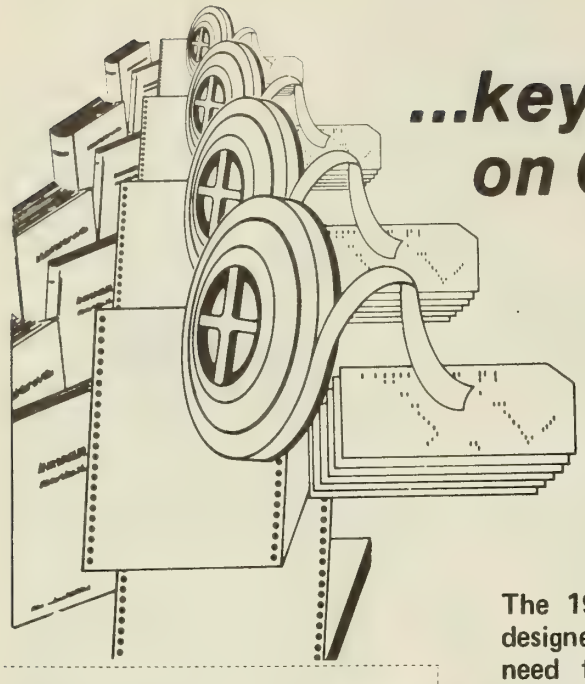
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

1967 CENSUS OF Mineral Industries



MIC67(2)-35

AREA STATISTICS

OKLAHOMA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	12
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



OKLAHOMA

Incorporated places of 100,000 and over ⊙
Incorporated places of 25,000-100,000 ●
Standard Metropolitan Statistical Areas

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,782	304	30.1	219.6	17.4	35.1	102.2	985.1
1963	[1]2,519	300	32.9	199.9	21.3	41.6	105.8	805.9
1958	2,643	342	38.2	195.3	24.7	47.6	104.7	674.0
1954	2,610	393	40.9	176.9	30.3	61.1	115.1	584.4
Including operations in manufactures:								
1967	1,801	308	30.3	220.4	17.6	35.5	103.0	991.7
1963	2,547	301	33.1	200.6	21.5	41.9	106.5	810.2
1958	2,668	347	38.5	196.1	24.9	48.0	105.4	676.9
1954[2]	2,627	399	41.1	177.6	30.5	61.5	115.8	586.6
1939[3]	[4]1,687	(NA)	33.3	52.5	26.2	46.9	33.9	173.0
1929								
1919[5]	1,964	(NA)	39.8	59.5	34.0	(NA)	46.9	192.4
1909[5]	888	(NA)	13.0	9.1	11.7	(NA)	7.8	18.0
1902	[4]22	(NA)	.1	.1	[6].1	(NA)	.1	.2
Excluding oil and gas extraction industries:								
1967	118	30	1.7	9.0	1.4	3.2	7.5	27.4
1963	187	29	2.0	9.6	1.7	3.8	7.8	24.8
1958	182	33	2.5	11.2	2.1	4.4	9.4	23.1
1954[2]	238	44	3.6	13.3	3.4	7.3	12.2	26.3
1939[3]	[4]241	(NA)	5.8	5.9	5.2	10.3	5.1	11.8
1929[7]	220	(NA)	11.0	15.6	10.3	(NA)	13.6	25.2
1919[5]	286	(NA)	14.4	17.9	12.8	(NA)	16.1	25.5
1909[8]	166	(NA)	9.2	5.9	8.8	(NA)	5.5	6.5

Kind of operation and year	Selected expenses				Value of shipments and receipts [10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation [9] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[11]320.1	([11])	106.5	([11])	1,223.1	188.6	(NA)
1963	[12]150.7	[12]101.8	128.0	58.2	1,039.5	205.0	28.8
1958	[12]135.0	[12]50.5	126.8	60.4	860.6	186.2	31.6
1954	123.1	17.6	156.0	94.7	755.2	220.5	31.3
Including operations in manufactures:							
1967	[13]427.6	([13])	([13])	([13])	1,229.7	(NA)	(NA)
1963	[12] [14]151.3	[12]101.8	[14]128.0	[15]58.2	1,044.4	[15]205.0	[15]28.8
1958	[12] [14]135.6	[12] 50.5	[14]126.8	[15]60.4	864.1	[15]186.2	[15]31.6
1954[2]	[14]123.7	17.6	[14]158.0	[15]94.7	758.1	[15]220.5	[15]31.3
1939[3]	21.9	(NA)	13.8	(NA)	208.7	(NA)	23.1
1929							
1919[5]	60.6	[16]9.8	19.2	(NA)	281.9	(NA)	[17]7.7
1909[5]	5.3	[16].1	2.2	(NA)	25.6	(NA)	(NA)
1902	(Z)	(NA)	(Z)	(NA)	.2	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[13]14.3	([13])	([13])	([13])	37.2	(NA)	(NA)
1963	[12] [14]10.2	([12])	[14].8	[15]2.0	35.3	[15]2.6	[15].6
1958	[12] [14]10.1	([12])	[14]1.0	[15]1.9	33.8	[15]2.1	[15].5
1954[2]	[14]8.5	6.9	[14].8	[15]2.1	42.7	[15]1.9	[15].5
1939[3]	4.0	(NA)	.2	(NA)	15.9	(NA)	5
1929[7]	7.6	(NA)	.3	1.0	33.1	(NA)	1.0
1919[5]	8.5	-	.5	(NA)	34.4	(NA)	[17]2.6
1909[8]	1.4	-	.1	(NA)	8.0	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for Table 1--Oklahoma--Continued

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 362 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[3]Excludes data for dimension stone dressing plants, if any, operated in conjunction with 2 dimension granite quarries.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand, gravel, common clay, and shale mining operations, and limestone quarries operated as parts of cement and lime plants. The value of products of such common sand, gravel, connom clay, and shale mining operations in 1939 was $613 thousand.

[6] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]Excludes data for common clay and shale mining operations There were 9 such mines in 1939 with products valued at $68 thousand.

[8]Includes data for 11 nonproducing crude petroleum and natural gas operations. For 1902, only one establishment was reported in the Crude Petroleum and Natural Gas Industry. Hence, the 1902 figures shown for "All operations" are approximately comparable to the figures for later years shown for "Excluding oil and gas extraction industries." See also footnote 5.

[9]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants, but for 1954 includes the estimated value prior to processing of natural gas liquids contained in such gas.

[10]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Minerals received for preparation." For all other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Figures for minerals received for preparation in the Metal Mining Industries are included with those for supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes data for crushed and broken stone, and gravel, clay, and gypsum mining operations in manufacturing establishments, and for 1963 excludes data for dimension stone mining in manufacturing establishments.

[16]Represents natural gas purchased for resale.

[17]Excludes purchased electric energy. For "All operations" in 1939, the quantity of purchased electric energy amounted to only 1 percent of the total kw.-hrs. equivalent of energy used; but for "Excluding oil and gas extraction industries" in 1929 it amounted to 9 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,782	304	30.1	219.6	17.4	35.1	102.2	985.1	426.6	1,223.1	188.6	32.9	805.9
10	Metal mining	19	2	.2	1.3	.2	.3	.9	2.7	3.8	6.2	.3	.3	(D)
1031	Lead and zinc ores	18	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Lead ores	9	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Zinc ores	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
12	Bituminous coal and lignite mining	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	(NA)
121	Bituminous coal and lignite mining	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1211	Bituminous coal	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.2
13	Oil and gas extraction	1,683	278	28.6	211.4	16.2	32.4	95.5	964.3	413.3	1,192.5	185.1	31.0	785.4
1311	Crude petroleum and natural gas	918	103	16.1	132.6	7.1	13.5	44.5	758.0	227.9	828.3	157.6	18.6	627.4
	Crude petroleum	839	98	15.3	126.7	6.7	12.7	41.8	635.5	208.0	701.7	141.7	17.9	561.0
	Natural gas	79	5	.8	6.0	.4	.8	2.7	122.6	19.9	126.6	15.9	.7	66.4
1321	Natural gas liquids	84	25	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.7	70.0
138	Oil and gas field services	681	150	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	10.7	88.0
1381	Drilling oil and gas wells	213	70	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	5.7	54.0
1382	Oil and gas exploration services	51	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	7.4
1389	Oil and gas field services, n.e.c.	417	71	5.9	37.3	4.1	8.6	21.1	63.4	20.3	77.7	6.0	4.3	26.7
14	Nonmetallic minerals, except fuels	70	21	1.0	5.4	.9	2.0	4.5	14.2	(D)	19.4	(D)	1.3	15.0
1421	Crushed and broken stone	27	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	8.7
	Crushed and broken limestone	23	12	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	7.3
144	Sand and gravel	33	7	.3	1.5	.3	.6	1.3	3.7	(D)	5.4	(D)	.4	5.1
1442	Construction sand and gravel	31	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1443	Glass sand	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals except fuels	19	4	0.2	0.8	0.2	0.4	0.8	5.6	1.0	6.6	(NA)	0.2	4.3
145	Clay and related minerals	9	-	(Z)	0.1	(Z)	0.1	0.1	0.4	0.1	0.5	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Oklahoma:													
	Establishments.....number..	1,782	1,771	482	22	4	456	55	1	44	10	81	153	11
	Employees.....1,000..	30.1	29.9	10.5	(D)	(D)	10.4	1.1	(D)	.9	(D)	1.3	17.0	(Z)
	Value added in mining..mil.dol..	985.1	983.9	741.5	(D)	(D)	739.4	16.7	(D)	14.5	(D)	89.2	136.5	1.2
10	Metal mining:													
	Establishments.....number..	19	19	16	16	-	-	-	-	-	-	1	2	-
	Employees.....1,000..	.2	.2	(D)	(D)	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining..mil.dol..	2.7	2.7	(D)	(D)	-	-	-	-	-	-	(D)	(D)	-
103	Lead and zinc ores:													
	Establishments.....number..	18	18	16	16	-	-	-	-	-	-	(D)	(D)	-
	Employees.....1.000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	1	1	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	(D)	(D)	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	10	10	6	6	-	-	4	-	3	1	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	(D)	-	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	10	10	6	6	-	-	4	-	3	1	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	(D)	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	1,683	1,672	455	-	-	455	-	-	-	-	79	1,138	11
	Employees.....1,000..	28.6	28.5	(D)	-	-	(D)	-	-	-	-	(D)	16.8	(Z)
	Value added in mining..mil.dol..	964.3	963.2	(D)	-	-	(D)	-	-	-	-	(D)	135.6	1.2
131	Crude petroleum and natural gas:													
	Establishments.....number..	918	909	455	-	-	455	-	-	-	-	-	454	9
	Employees.....1,000..	16.1	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	758.0	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	84	82	-	-	-	-	-	-	-	-	79	3	2
	Employees.....1,000..	(D)	1.9	-	-	-	-	-	-	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	88.2	-	-	-	-	-	-	-	-	(D)	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	681	681	-	-	-	-	-	-	-	-	-	681	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	70	70	5	-	4	1	51	1	41	9	1	13	-
	Employees.....1,000..	1.0	1.0	(D)	-	(D)	(D)	(D)	(D)	(D)	.1	(D)	(D)	-
	Value added in mining..mil.dol..	14.2	14.2	(D)	-	(D)	(D)	(D)	(D)	(D)	.8	(D)	(D)	-
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	27	27	-	-	-	-	26	1	25	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	.6	(D)	(D)	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	9.1	(D)	(D)	-	(D)	-	-
144	Sand and gravel:													
	Establishments.....number..	33	33	3	-	2	1	18	-	9	9	-	12	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	(D)	.3	-	.1	.1	-	(D)	-
	Value added in mining..mil.dol..	3.7	3.7	(D)	-	(D)	(D)	3.1	-	2.3	.8	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967–Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Oklahoma--Continued													
14	Nonmetallic minerals, except fuels--Continued													
147	Chemical and fertilizer minerals:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	6	6	1	-	1	-	5	-	5	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.4	.4	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,782	2,519	Cost of supplies, total.....million dollars..	426.6	438.6
With 0 to 19 employees.....do....	1,478	2,219	Supplies used, minerals received for preparation, and purchased machinery.....do....	293.9	(NA)
With 20 to 99 employees.....do....	260	267	Cost of resales.....do....	1.3	(NA)
With 100 or more employees.....do....	44	33	Purchased fuels consumed.....do....	11.7	(NA)
All employees (average for year).....1,000..	30.1	32.9	Electric energy:		
			Quantity purchased.....million kw.-hrs..	964.1	(NA)
Payroll (all employees), total for year.....million dollars..	219.6	199.9	Cost.....million dollars..	13.2	(NA)
			Generated less sold.....million kw.-hrs..	241.7	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	106.5	128.0
Average for the year.....1,000..	17.4	21.3	Value of shipments and receipts (including resales), total.....do....	1,223.1	1,039.5
March.....do....	17.4	(NA)	Value of resales.....do....	2.9	(NA)
May.....do....	17.4	(NA)			
August.....do....	17.6	(NA)			
November.....do....	17.2	(NA)	Value added in mining.....do....	985.1	805.9
Man-hours.....millions..	35.1	41.6	Capital expenditures (except land and mineral rights), total.....do....	188.6	205.0
Wages.....million dollars..	102.2	105.8	Mineral development and exploration.....do....	91.9	98.8
			New structures and additions.....do....	16.4	106.2
Supplemental labor cost not included in payroll.....do..	16.0	(NA)	New machinery and equipment.....do....	69.9	
			Used plant and equipment.....do....	10.4	
Legally required expenditures, including Social Security contributions.....do..	8.0	(NA)	Mineral development and exploration expenditures, total.....do....	128.3	(NA)
Payments for voluntary programs.....do..	8.0	(NA)	Capitalized.....do....	91.9	98.8
			Expensed.....do....	36.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Oklahoma, total	1,782	304	30.1	219.6	17.4	35.1	102.2	985.1	426.6	1,223.1	188.6	32.9	805.9
	COUNTIES[2]													
	Alfalfa county, total	46	2	.1	.9	.1	.2	.9	6.6	2.4	8.5	.4	.1	3.1
13	Oil and gas extraction	46	2	.1	.9	.1	.2	.9	6.6	2.4	8.5	.4	(D)	(D)
	Atoka county, total	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Beaver county, total	98	1	.2	2.0	.2	.4	1.4	41.5	21.5	58.8	4.2	.4	32.9
13	Oil and gas extraction	98	1	.2	2.0	.2	.4	1.4	41.5	21.5	58.8	4.2	.4	32.9
131	Crude petroleum and natural gas	76	-	.1	1.0	.1	.2	.6	33.5	9.6	39.3	3.8	.1	26.4
	Beckham county, total	21	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	14.7
13	Oil and gas extraction	21	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	14.7
	Blaine county, total	44	2	.2	.9	.1	.2	.8	15.1	10.4	15.9	9.5	.1	3.7
13	Oil and gas extraction	43	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	19	2	.1	.7	.1	.2	.6	2.0	1.4	3.2	.3	.1	.5
	Caddo county, total	49	3	.2	1.1	.1	.3	.7	20.6	5.7	24.7	1.5	.3	9.3
13	Oil and gas extraction	47	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	35	2	.1	.8	.1	.2	.5	19.8	5.1	23.7	1.3	.2	8.6
	Canadian county, total	36	2	.2	1.3	.1	.3	1.1	8.5	5.8	5.8	8.6	(Z)	1.4
13	Oil and gas extraction	34	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	13	2	.1	.9	.1	.3	.9	1.4	1.4	2.3	.5	(Z)	.2
	Carter county, total	178	12	1.2	8.1	.9	1.8	5.5	56.3	19.6	69.5	6.6	1.6	43.5
13	Oil and gas extraction	177	12	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.6	43.5
131	Crude petroleum and natural gas	121	7	.8	5.8	.6	1.1	3.7	48.3	14.6	57.2	5.6	1.0	4.1
138	Oil and gas field services	51	4	.4	1.9	.3	.6	1.4	4.3	1.6	5.6	.4	.5	4.8
	Cleveland county, total	73	1	.2	1.3	.2	.3	1.2	14.9	6.3	18.6	2.7	.3	12.5
13	Oil and gas extraction	73	1	.2	1.3	.2	.3	1.2	14.9	6.3	18.6	2.7	.3	12.5
	Creek county, total	148	16	1.0	5.8	.8	1.6	4.2	35.7	10.5	40.8	5.3	1.3	30.2
13	Oil and gas extraction	147	15	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	90	7	.5	3.0	.3	.6	1.8	29.0	7.5	31.9	4.6	.8	24.2
138	Oil and gas field services	55	7	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	3.9
	Custer county, total	35	1	.1	.9	.1	.3	.8	5.6	3.3	7.2	1.6	(Z)	2.3
13	Oil and gas extraction	34	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	2.3
138	Oil and gas field services	18	1	.1	.7	.1	.2	.7	1.6	1.3	2.3	.6	(Z)	.3
	Dewey county, total	58	1	.1	1.2	.1	.2	.9	23.1	8.6	26.0	5.7	.1	8.7
13	Oil and gas extraction	58	1	.1	1.2	.1	.2	.9	23.1	8.6	26.0	5.7	(D)	(D)
	Garfield county, total	120	10	.7	4.4	.5	1.1	3.0	42.0	18.9	51.1	9.8	.6	19.6
13	Oil and gas extraction	118	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	70	3	.2	1.4	.1	.2	.7	31.8	9.9	32.9	8.7	.2	13.7
138	Oil and gas field services	45	6	.4	2.5	.4	.8	2.0	7.3	3.7	10.1	.8	(D)	(D)
	Garvin county, total	145	19	1.3	7.9	1.0	2.1	5.9	68.9	27.1	90.5	5.4	1.5	78.7
13	Oil and gas extraction	144	19	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	89	4	.3	2.5	.2	.4	1.3	45.8	10.3	52.9	3.2	.4	51.6
132	Natural gas liquids	6	2	.2	1.6	.2	.4	1.5	15.6	13.2	27.8	1.0	.3	18.7
138	Oil and gas field services	49	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Oklahoma-Continued													
	COUNTIES[2]--Continued													
	Grady county, total	62	4	.3	2.1	.2	.5	1.5	22.4	11.0	27.7	5.6	.3	17.4
13	Oil and gas extraction	62	4	.3	2.1	.2	.5	1.5	22.4	11.0	27.7	5.6	(D)	(D)
131	Crude petroleum and natural gas	47	2	.2	1.1	.1	.2	.7	20.5	6.6	22.5	4.6	.2	13.6
138	Oil and gas field services	14	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Harper county, total	75	2	.1	.9	.1	.2	.8	18.4	10.2	26.2	2.3	.1	12.6
13	Oil and gas extraction	74	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	12.6
	Haskell county, total	30	2	.1	1.0	.1	.2	.8	7.4	2.6	9.4	.5	.1	3.6
	Hughes county, total	76	2	.2	.7	.1	.2	.5	4.4	2.3	4.8	1.9	.2	6.0
13	Oil and gas extraction	76	2	.2	.7	.1	.2	.5	4.4	2.3	4.8	1.9	(D)	(D)
	Johnston county, total	8	2	.1	.5	.1	.2	.5	1.4	.9	2.1	.1	.1	1.9
	Kay county, total	73	2	.2	1.2	.2	.3	.9	10.9	5.0	14.4	1.5	.3	8.8
13	Oil and gas extraction	71	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	8.7
131	Crude petroleum and natural gas	54	-	.1	.7	.1	.2	.5	5.3	1.5	5.6	1.2	(D)	(D)
	Kingfisher county, total	106	12	.7	4.6	.6	1.2	3.9	46.6	19.8	54.2	12.2	.8	33.8
13	Oil and gas extraction	106	12	.7	4.6	.6	1.2	3.9	46.6	19.8	54.2	12.2	(D)	(D)
131	Crude petroleum and natural gas	66	4	.2	1.8	.2	.4	1.3	33.5	11.7	35.9	9.3	.2	23.6
138	Oil and gas field services	37	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Latimer county, total	35	2	.2	1.1	.1	.3	.9	12.6	4.0	13.7	2.9	.1	3.1
13	Oil and gas extraction	35	2	.2	1.1	.1	.3	.9	12.6	4.0	13.7	2.9	(D)	(D)
138	Oil and gas field services	14	2	.1	.9	.1	.3	.7	1.7	1.0	2.5	.2	.1	1.6
	Lincoln county, total	105	2	.3	1.4	.3	.4	1.1	7.9	3.0	10.2	.7	.5	18.4
13	Oil and gas extraction	105	2	.3	1.4	.3	.4	1.1	7.9	3.0	10.2	.7	.5	18.4
131	Crude petroleum and natural gas	75	-	.1	.7	.1	.2	.5	6.2	2.0	7.7	.5	.3	15.5
138	Oil and gas field services	28	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.1
	Logan county, total	91	2	.2	1.0	.1	.3	.7	8.3	4.4	11.3	1.3	.2	6.5
13	Oil and gas extraction	89	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	McClain county, total	77	1	.2	1.3	.2	.3	1.0	19.8	9.0	25.3	3.5	.4	18.3
13	Oil and gas extraction	76	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Major county, total	88	4	.3	2.3	.3	.6	1.7	26.8	18.3	36.5	8.6	.2	14.4
13	Oil and gas extraction	87	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	50	1	.1	.9	.1	.2	.6	20.1	8.5	21.5	7.1	(Z)	11.8
138	Oil and gas field services	34	2	.1	.9	.1	.2	.7	1.9	1.1	2.8	.2	(D)	(D)
	Marshall county, total	27	2	.1	.9	.1	.2	.5	7.9	2.3	8.3	1.9	.1	6.0
13	Oil and gas extraction	27	2	.1	.9	.1	.2	.5	7.9	2.3	8.3	1.9	.1	6.0
	Murray county, total	18	2	.1	.8	.1	.3	.7	3.0	.8	3.4	.3	.2	3.8
14	Nonmetallic minerals, except fuels	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.3
142	Crushed and broken stone	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Muskogee county, total	28	3	.1	.8	.1	.3	.7	4.7	1.9	5.7	.9	.2	5.2

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Oklahoma-Continued													
	COUNTIES[2]--Continued													
	Noble county, total	78	-	.1	.8	.1	.2	.6	5.5	2.0	6.6	.9	.2	6.0
13	Oil and gas extraction	78	-	.1	.8	.1	.2	.6	5.5	2.0	6.6	.9	.2	6.0
	Nowata county, total	28	1	.2	.9	.1	.3	.8	1.5	.9	2.0	.5	.3	4.0
13	Oil and gas extraction	28	1	.2	.9	.1	.3	.8	1.5	.9	2.0	.5	.3	4.0
131	Crude petroleum and natural gas	14	1	.1	.7	.1	.2	.6	1.3	.9	1.7	.5	.2	3.7
	Okfuskee county, total	79	1	.2	.7	.1	.2	.5	4.1	1.3	4.8	.5	.3	6.9
13	Oil and gas extraction	79	1	.2	.7	.1	.2	.5	4.1	1.3	4.8	.5	.3	6.9
	Oklahoma county, total	317	62	4.6	35.6	2.5	4.9	15.5	44.8	21.2	56.7	9.3	3.9	44.9
13	Oil and gas extraction	311	62	4.6	35.4	2.5	4.9	15.3	44.4	20.7	55.9	9.1	2.9	44.5
131	Crude petroleum and natural gas	168	32	2.9	25.2	1.1	2.1	7.7	26.7	5.4	26.2	5.9	1.8	32.2
138	Oil and gas field services	137	28	1.6	9.5	1.3	2.6	7.0	14.7	4.6	16.8	2.4	(D)	(D)
	Okmulgee county, total	82	2	.2	1.3	.2	.4	1.1	3.8	1.3	4.2	.9	.3	4.6
13	Oil and gas extraction	82	2	.2	1.3	.2	.4	1.1	3.8	1.3	4.2	.9	(D)	(D)
131	Crude petroleum and natural gas	61	1	.2	.9	.1	.3	.7	3.1	1.0	3.2	.8	.2	4.0
	Osage county, total	137	15	1.1	8.0	.7	1.4	4.3	45.5	13.9	52.5	6.9	1.5	54.0
13	Oil and gas extraction	137	15	1.1	8.0	.7	1.4	4.3	45.5	13.9	52.5	6.9	(D)	(D)
131	Crude petroleum and natural gas	94	10	.9	6.6	.5	1.0	3.2	43.0	12.9	49.3	6.6	1.0	49.9
138	Oil and gas field services	43	5	.3	1.4	.2	.4	1.2	2.5	1.0	3.2	.3	(D)	(D)
	Ottawa county, total	21	2	.2	1.1	.2	.3	.7	2.7	3.9	6.1	.4	.3	1.7
10	Metal mining	18	2	.2	1.1	.1	.3	.7	2.2	3.5	5.6	.2	.2	1.3
10	Lead and zinc ores	18	2	.2	1.1	.1	.3	.7	2.2	3.5	5.6	.2	(D)	(D)
	Pawnee county, total	61	1	.1	.7	.1	.2	.5	4.2	1.4	4.3	1.2	.2	3.6
13	Oil and gas extraction	58	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Payne county, total	97	1	.2	1.4	.2	.4	1.0	5.4	1.9	6.8	.6	.5	7.5
13	Oil and gas extraction	97	1	.2	1.4	.2	.4	1.0	5.4	1.9	6.8	.6	.5	7.5
131	Crude petroleum and natural gas	74	-	.2	.9	.1	.2	.7	4.9	1.7	6.0	.5	.2	4.7
	Pittsburg county, total	34	3	.2	.9	.1	.2	.6	4.4	2.9	3.3	3.9	.2	1.7
13	Oil and gas extraction	30	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.4
	Pontotoc county, total	93	2	.3	1.4	.2	.4	1.1	9.2	3.1	10.4	1.9	.4	8.7
13	Oil and gas extraction	92	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	66	-	.1	.8	.1	.2	.6	7.8	2.4	8.5	1.7	.3	7.4
138	Oil and gas field services	25	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8
	Pottawatomie county, total	110	2	.3	1.3	.2	.4	1.1	7.7	2.1	9.0	.7	.4	9.0
13	Oil and gas extraction	109	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	74	-	.1	.5	.1	.1	.4	6.2	1.5	7.2	.5	.2	6.6
138	Oil and gas field services	35	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Rogers county	21	2	.1	.8	.1	.2	.8	2.3	1.4	2.7	.9	.2	1.9

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Oklahoma-Continued													
	COUNTIES[2]--Continued													
	Seminole county, total.....	145	16	1.0	6.0	.9	1.7	4.7	24.2	10.8	31.4	3.6	1.2	22.1
13	Oil and gas extraction.....	144	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	91	5	.4	2.3	.3	.5	1.5	16.0	5.1	18.5	2.6	.5	16.9
132	Natural gas liquids.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services...	51	8	.5	3.1	.5	1.0	2.6	6.2	2.7	8.1	.8	(D)	(D)
	Stephens county, total.....	164	17	1.9	14.0	.8	1.7	7.3	70.0	34.6	98.2	9.2	2.1	55.7
13	Oil and gas extraction.....	164	17	1.9	14.0	.8	1.7	7.3	70.0	34.6	98.2	9.2	1.4	55.7
131	Crude petroleum and natural gas.....	106	5	.4	2.7	.3	.6	2.0	60.3	20.9	74.2	7.0	.6	47.8
132	Natural gas liquids.....	6	2	.1	1.0	.1	.3	3.7	4.5	11.5	17.3	1.4	.1	3.7
138	Oil and gas field services...	52	10	1.3	10.3	.3	.8	1.6	5.2	2.3	6.7	.8	.6	4.2
	Texas county, total.....	72	7	.4	3.2	.3	.6	2.2	62.6	24.6	80.4	6.7	.4	41.9
13	Oil and gas extraction.....	72	7	.4	3.2	.3	.6	2.2	62.6	24.6	80.4	6.7	(D)	(D)
131	Crude petroleum and natural gas.....	45	5	.2	1.8	.2	.3	1.2	53.2	11.7	58.9	6.0	.2	30.1
138	Oil and gas field services...	20	1	.1	.6	.1	.2	.5	1.7	1.0	2.3	.4	(D)	(D)
	Tulsa county, total.....	277	36	6.9	62.2	1.4	2.8	8.3	16.6	5.1	16.5	5.2	6.3	30.6
13	Oil and gas extraction.....	264	31	6.7	60.9	1.2	2.4	7.5	14.6	3.9	13.5	4.9	2.6	28.6
131	Crude petroleum and natural gas.....	185	18	5.2	49.4	.9	1.6	5.3	10.6	2.5	8.5	4.6	.2	25.1
132	Natural gas liquids.....	5	2	.3	2.9	(Z)	(Z)	.1	.3	.6	1.0	(Z)	(D)	(D)
138	Oil and gas field services...	74	11	1.2	8.6	.3	.8	2.0	3.6	.7	4.1	.3	.6	3.4
14	Nonmetallic minerals, except fuels.....	13	5	.2	1.2	.1	.3	.8	2.0	1.3	3.0	.4	.2	2.0
	Washington county, total.....	65	3	1.4	11.7	.2	.4	1.2	2.5	1.8	3.5	.8	1.6	10.8
13	Oil and gas extraction.....	64	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	47	3	1.4	11.3	.2	.3	.9	1.6	.9	1.8	.7	.3	9.7
	Woods county, total.....	52	3	.1	.7	.1	.2	.6	7.3	2.5	7.3	2.5	(Z)	2.1
13	Oil and gas extraction.....	52	3	.1	.7	.1	.2	.6	7.3	2.5	7.3	2.5	(Z)	2.1
	Woodward county, total.....	70	9	.5	3.1	.4	.8	2.3	15.2	11.1	23.4	2.8	.5	20.3
13	Oil and gas extraction.....	69	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services...	38	8	.4	2.6	.3	.8	2.1	6.1	2.4	8.1	.5	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Oklahoma, total	1,782	19	-	10	1,683	70
0 to 4 employees	1,019	8	-	5	979	27
5 to 9 employees	250	4	-	-	235	11
10 to 19 employees	209	5	-	2	191	11
20 to 49 employees	195	-	-	2	177	16
50 to 99 employees	65	2	-	1	57	5
100 to 249 employees	25	-	-	-	25	-
250 to 499 employees	12	-	-	-	12	-
500 to 999 employees	5	-	-	-	5	-
1,000 to 2,499 employees	2	-	-	-	2	-
Adair county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Alfalfa county, total	46	-	-	-	46	-
0 to 19 employees	44	-	-	-	44	-
20 to 99 employees	2	-	-	-	2	-
Atoka county, total	9	-	-	-	7	2
0 to 19 employees	6	-	-	-	6	-
20 to 99 employees	3	-	-	-	1	2
Beaver county, total	98	-	-	-	98	-
0 to 19 employees	97	-	-	-	97	-
20 to 99 employees	1	-	-	-	1	-
Beckham county, total	21	-	-	-	21	-
0 to 19 employees	19	-	-	-	19	-
20 to 99 employees	2	-	-	-	2	-
Blaine county, total	44	-	-	-	43	1
0 to 19 employees	42	-	-	-	41	1
20 to 99 employees	2	-	-	-	2	-
Bryan county, total	14	-	-	-	14	-
0 to 19 employees	14	-	-	-	14	-
Caddo county, total	49	-	-	-	47	2
0 to 19 employees	46	-	-	-	44	2
20 to 99 employees	3	-	-	-	3	-
Canadian county, total	36	-	-	-	34	2
0 to 19 employees	34	-	-	-	32	2
20 to 99 employees	2	-	-	-	2	-
Carter county, total	178	-	-	-	177	1
0 to 19 employees	166	-	-	-	165	1
20 to 99 employees	11	-	-	-	11	-
100 to 249 employees	1	-	-	-	1	-
Choctaw county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cimarron county,total	39	-	-	-	39	-
0 to 19 employees	39	-	-	-	39	-
Cleveland county, total	73	-	-	-	73	-
0 to 19 employees	72	-	-	-	72	-
20 to 99 employees	1	-	-	-	1	-
Coal county, total	26	-	-	-	26	-
0 to 19 employees	26	-	-	-	26	-
Comanche county, total	13	-	-	-	11	2
0 to 19 employees	12	-	-	-	11	1
20 to 99 employees	1	-	-	-	-	1
Cotton county, total	28	-	-	-	28	-
0 to 19 employees	26	-	-	-	26	-
20 to 99 employees	2	-	-	-	2	-
Craig county, total	3	-	-	2	1	-
0 to 19 employees	3	-	-	2	1	-
Creek county, total	148	-	-	-	147	1
0 to 19 employees	132	-	-	-	132	-
20 to 99 employees	16	-	-	-	15	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Oklahoma-Continued						
Custer county, total	35	-	-	-	34	1
0 to 19 employees	34	-	-	-	33	1
20 to 99 employees	1	-	-	-	1	-
Delaware county,total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Dewey county, total	58	-	-	-	58	-
0 to 19 employees	57	-	-	-	57	-
20 to 99 employees	1	-	-	-	1	-
Ellis county, total	44	-	-	-	44	-
0 to 19 employees	44	-	-	-	44	-
Garfield county, total	120	-	-	-	118	2
0 to 19 employees	110	-	-	-	108	2
20 to 99 employees	10	-	-	-	10	-
Garvin county, total	145	-	-	-	144	1
0 to 19 employees	126	-	-	-	125	1
20 to 99 employees	18	-	-	-	18	-
100 to 249 employees	1	-	-	-	1	-
Grady county, total	62	-	-	-	62	-
0 to 19 employees	58	-	-	-	58	-
20 to 99 employees	4	-	-	-	4	-
Grant county, total	55	-	-	-	55	-
0 to 19 employees	55	-	-	-	55	-
Greer county, total	4	-	-	-	3	1
0 to 19 employees	4	-	-	-	3	1
Harmon county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Harper county, total	75	-	-	-	74	1
0 to 19 employees	73	-	-	-	72	1
20 to 99 employees	2	-	-	-	2	-
Haskell county, total	30	1	-	2	27	-
0 to 19 employees	28	1	-	-	27	-
20 to 99 employees	2	-	-	2	-	-
Hughes county, total	76	-	-	-	76	-
0 to 19 employees	74	-	-	-	74	-
20 to 99 employees	2	-	-	-	2	-
Jackson county, total	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-
Jefferson county, total	33	-	-	-	33	-
0 to 19 employees	33	-	-	-	33	-
Johnston county, total	8	-	-	-	5	3
0 to 19 employees	6	-	-	-	4	2
20 to 99 employees	2	-	-	-	1	1
Kay county, total	73	-	-	-	71	2
0 to 19 employees	71	-	-	-	69	2
20 to 99 employees	2	-	-	-	2	-
Kingfisher county, total	106	-	-	-	106	-
0 to 19 employees	94	-	-	-	94	-
20 to 99 employees	12	-	-	-	12	-
Kiowa county, total	12	-	-	-	10	2
0 to 19 employees	11	-	-	-	10	1
20 to 99 employees	1	-	-	-	-	1
Latimer county, total	35	-	-	-	35	-
0 to 19 employees	33	-	-	-	33	-
20 to 99 employees	2	-	-	-	2	-
Le Flore county, total	32	-	-	2	29	1
0 to 19 employees	32	-	-	2	29	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Oklahoma-Continued						
Lincoln county, total	105	-	-	-	105	-
0 to 19 employees	103	-	-	-	103	-
20 to 99 employees	2	-	-	-	2	-
Logan county, total	91	-	-	-	89	2
0 to 19 emplolyes	89	-	-	-	87	2
20 to 99 employees	2	-	-	-	2	-
Love county, total	28	-	-	-	28	-
0 to 19 employees	27	-	-	-	27	-
20 to 99 employees	1	-	-	-	1	-
McClain county, total	77	-	-	-	76	1
0 to 19 employees	76	-	-	-	75	1
20 to 99 employees	1	-	-	-	1	-
McCurtain county, total	3	-	-	-	2	1
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	-	1
McIntosh county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Major county, total	88	-	-	-	87	1
0 to 19 employees	84	-	-	-	83	1
20 to 99 employees	4	-	-	-	4	-
Marshall county, total	27	-	-	-	27	-
0 to 19 employees	25	-	-	-	25	-
20 to 99 employees	2	-	-	-	2	-
Mayes county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Murray county, total	18	-	-	-	15	3
0 to 19 employees	16	-	-	-	15	1
20 to 99 employees	2	-	-	-	-	2
Muskogee county, total	28	-	-	-	25	3
0 to 19 employees	25	-	-	-	25	-
20 to 99 employees	3	-	-	-	-	3
Noble county, total	78	-	-	-	78	-
0 to 19 employees	78	-	-	-	78	-
Nowata county, total	28	-	-	-	28	-
0 to 19 employees	27	-	-	-	27	-
20 to 99 employees	1	-	-	-	1	-
Okfuskee county, total	79	-	-	-	79	-
0 to 19 employees	78	-	-	-	78	-
20 to 99 employees	1	-	-	-	1	-
Oklahoma county, total	317	-	-	-	311	6
0 to 19 employees	255	-	-	-	249	6
20 to 99 employees	55	-	-	-	55	-
100 to 249 employees	5	-	-	-	5	-
250 employees and over	2	-	-	-	2	-
Okmulgee county, total	82	-	-	-	82	-
0 to 19 employees	80	-	-	-	80	-
20 to 99 employees	2	-	-	-	2	-
Osage county, total	137	-	-	-	137	-
0 to 19 employees	122	-	-	-	122	-
20 to 99 employees	12	-	-	-	12	-
100 to 249 employees	3	-	-	-	3	-
Ottawa county, total	21	18	-	-	1	2
0 to 19 employees	19	16	-	-	1	2
20 to 99 employees	2	2	-	-	-	-
Pawnee county, total	61	-	-	-	58	3
0 to 19 employees	60	-	-	-	58	2
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Oklahoma-Continued						
Payne county, total	97	-	-	-	97	-
0 to 19 employees	96	-	-	-	96	-
20 to 99 employees	1	-	-	-	1	-
Pittsburg county, total	34	-	-	1	30	3
0 to 19 employees	31	-	-	1	28	2
20 to 99 employees	3	-	-	-	2	1
Pontotoc county, total	93	-	-	-	92	1
0 to 19 employees	91	-	-	-	91	-
20 to 99 employees	2	-	-	-	1	1
Pottawatomie county, total	110	-	-	1	109	-
0 to 19 employees	108	-	-	1	107	-
20 to 99 employees	2	-	-	-	2	-
Pushmataha county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Roger mills county, total	24	-	-	-	24	-
0 to 19 employees	23	-	-	-	23	-
20 to 99 employees	1	-	-	-	1	-
Rogers county, total	21	-	-	1	20	-
0 to 19 employees	19	-	-	-	19	-
20 to 99 employees	2	-	-	1	1	-
Seminole county, total	145	-	-	-	144	1
0 to 19 employees	129	-	-	-	129	-
20 to 99 employees	16	-	-	-	15	1
Sequoyah county, total	10	-	-	-	10	-
0 to 19 employees	10	-	-	-	10	-
Stephens county, total	164	-	-	-	164	-
0 to 19 employees	147	-	-	-	147	-
20 to 99 employees	15	-	-	-	15	-
250 employees and over	2	-	-	-	2	-
Texas county, total	72	-	-	-	72	-
0 to 19 employees	65	-	-	-	65	-
20 to 99 employees	7	-	-	-	7	-
Tillman county, total	13	-	-	-	13	-
0 to 19 employees	12	-	-	-	12	-
20 to 99 employees	1	-	-	-	1	-
Tulsa county, total	277	-	-	-	264	13
0 to 19 employees	241	-	-	-	233	8
20 to 99 employees	24	-	-	-	19	5
100 to 249 employees	6	-	-	-	6	-
250 employees and over	6	-	-	-	6	-
Wagoner county, total	10	-	-	1	9	-
0 to 19 employees	10	-	-	1	9	-
Washington county, toall	65	-	-	-	64	1
0 to 19 employees	62	-	-	-	61	1
20 to 99 employees	1	-	-	-	1	-
250 employees and over	2	-	-	-	2	-
Washita county, total	15	-	-	-	15	-
0 to 19 employees	15	-	-	-	15	-
Woods county, total	52	-	-	-	52	-
0 to 19 employees	49	-	-	-	49	-
20 to 99 employees	3	-	-	-	3	-
Woodward county, total	70	-	-	-	69	1
0 to 19 employees	61	-	-	-	60	1
20 to 99 employees	9	-	-	-	9	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

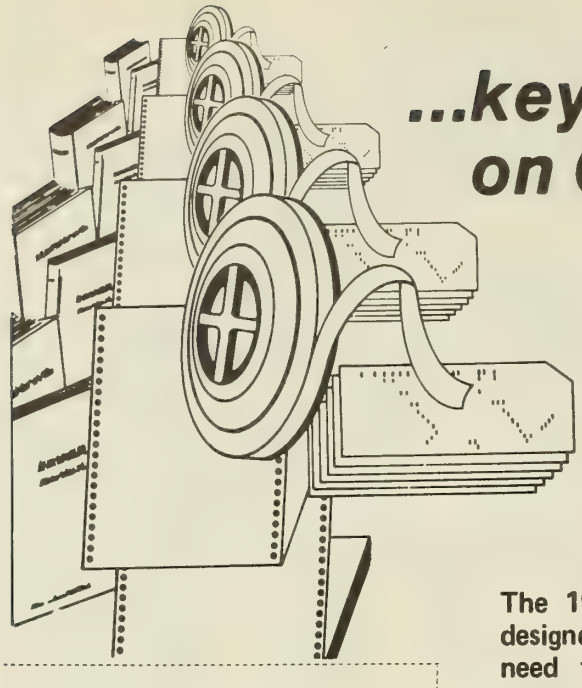
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-858

1967 CENSUS OF Mineral Industries



MIC67(2)-36

AREA STATISTICS

OREGON

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 cen . for the first time, approximately 10,000 single-unit establis ients with one to four employees were excused from filin reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

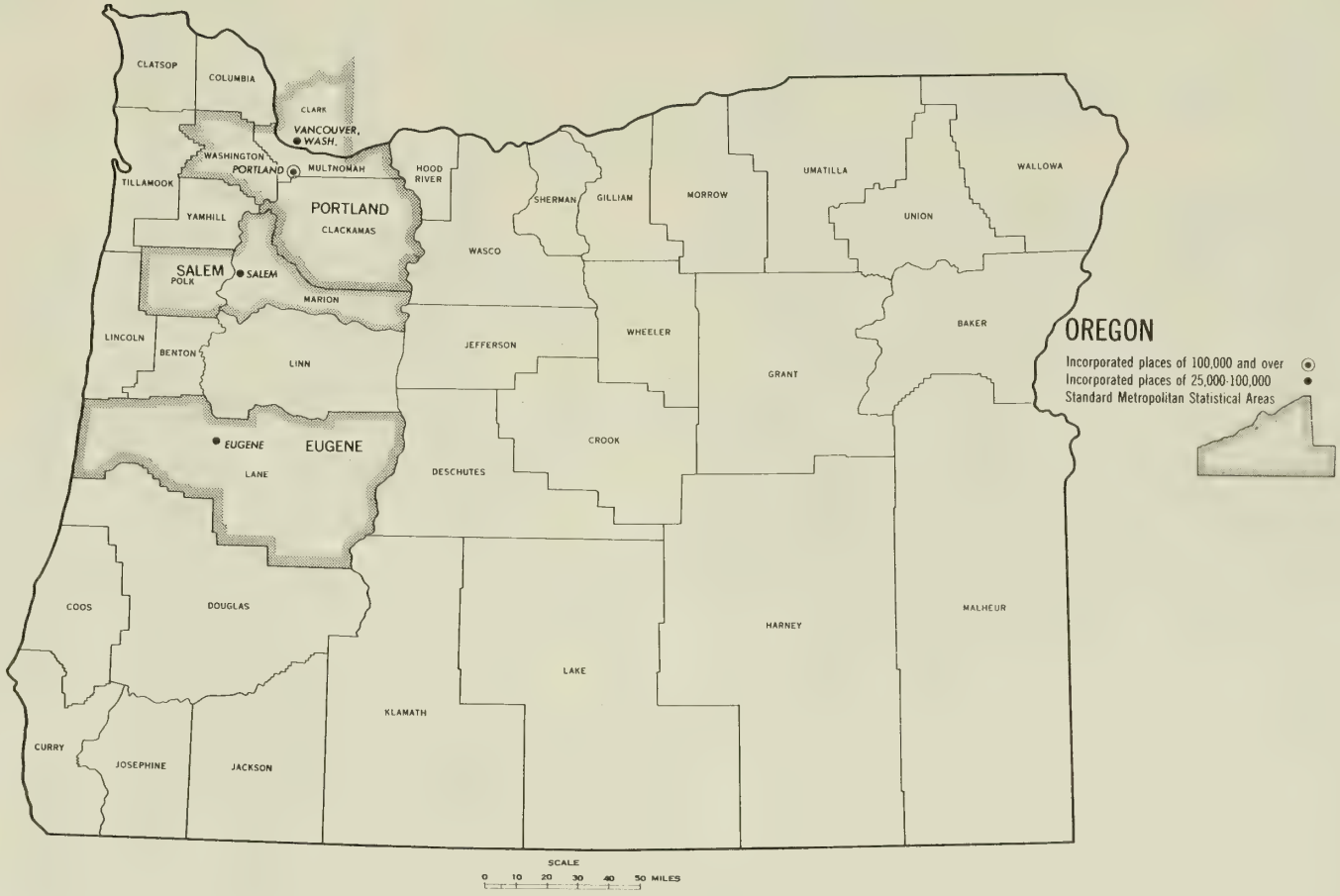
WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]160	18	1.4	9.5	1.2	2.4	8.2	27.3
1963	[1]206	22	1.9	11.2	1.6	3.0	8.8	17.7
1958	201	13	1.2	6.3	1.0	2.0	5.0	15.9
1954	278	13	1.4	6.3	1.3	2.6	5.5	12.6
Including operations in manufactures:								
1967	181	20	1.5	10.5	1.3	2.7	9.2	31.3
1963	231	22	2.1	11.8	1.7	3.3	9.4	21.3
1958	230	15	1.4	6.9	1.1	2.3	5.6	18.6
1954[2]	296	13	1.5	6.5	1.3	2.7	5.7	13.2
1939[3]	[4]128	(NA)	1.5	2.0	1.3	2.7	1.6	3.8
1929[5]	112	(NA)	1.2	1.8	1.1	(NA)	1.5	2.5

Kind of operation and year	Selected expenses				Value of shipments and receipts[6]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[7]9.9	([7])	3.6	([7])	35.1	5.6	(NA)
1963	7.3	.3	2.4	2.5	25.7	4.4	.4
1958	5.8	.2	3.0	1.6	19.9	6.6	.3
1954	4.6	.1	1.9	1.8	18.3	3.7	.3
Including operations in manufactures:							
1967	[8]13.8	([8])	([8])	([8])	39.4	(NA)	(NA)
1963	[9]7.9	.3	[9]8.4	[10]2.5	29.9	[10]4.4	[10].4
1958	[9]6.2	.2	[9]3.1	[10]1.6	23.1	[10]6.6	[10].3
1954[2]	[9]4.7	.1	[9]1.9	[10]2.8	18.9	[10]3.7	[10].3
1939[3]	1.3	(NA)	(Z)	(NA)	5.1	(NA)	.1
1929[5]	.9	(NA)	.1	.2	3.5	(NA)	.1

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 25 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[3]Excludes data for dimension stone dressing operations, if any, in conjunction with two stone quarries, not elsewhere classified.

[4]Represents number of mines and quarries.

[5]Excludes data for common clay and shale operations. There were 9 such mines in 1939 with products valued at $68 thousand.

[6]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of "Minerals received for preparation."

[7]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[8]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[10]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	160	18	1.4	9.5	1.2	2.4	8.2	27.3	13.5	35.1	5.6	1.9	17.7
10	Metal mining	18	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	(D)
106	Ferroalloy ores, except vanadium	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1069	Ferroalloy ores, n.e.c.	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	132	17	1.2	8.1	1.0	2.1	7.1	19.0	9.9	26.4	2.6	1.8	(D)
142	Crushed and broken stone	61	12	.6	4.2	.6	1.1	3.6	10.3	4.9	14.1	1.1	.6	5.1
1422	Crushed and broken limestone	13	5	.2	1.5	.2	.4	1.3	3.3	1.6	4.7	.3	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	48	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	4.0
144	Sand and gravel	57	5	.5	3.4	.4	.8	3.0	7.6	4.3	10.7	1.3	1.1	10.2
1442	Construction sand and gravel	56	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	21	2	0.1	1.0	0.1	0.3	1.0	4.0	0.3	4.3	(NA)	0.1	3.7
144	Sand and gravel	11	2	0.1	0.9	0.1	0.2	0.9	3.4	0.2	3.6	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Oregon:													
	Establishments.....number..	160	150	16	5	11	-	100	1	87	12	4	30	10
	Employees.....1,000..	1.4	1.4	.1	(D)	(D)	-	1.1	(D)	.8	(D)	(D)	(D)	(Z)
	Value added in mining.mil.dol..	27.3	27.0	7.0	(D)	(D)	-	17.5	(D)	11.9	(D)	(D)	(D)	.2
10	Metal mining:													
	Establishments.....number..	18	14	7	5	2	-	6	-	6	-	-	1	4
	Employees.....1,000..	(D)	(D)	.1	(D)	(D)	-	(Z)	-	(Z)	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	6.7	(D)	(D)	-	.2	-	.2	-	-	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	3	-	-	-	-	-	-	-	-	-	-	-	3
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
104	Gold and silver ores:													
	Establishments.....number..	7	6	5	5	-	-	1	-	1	-	-	-	1
	Employees.....1,000..	(Z)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining.mil.dol..	(Z)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	6	6	1	-	1	-	5	-	5	-	-	-	-
	Employees.....1,000..	(D)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	10	5	-	-	-	-	-	-	-	-	-	5	5
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	7	2	-	-	-	-	-	-	-	-	-	2	5
	Employees.....1,000..	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	.4	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	132	131	9	-	9	-	94	1	81	12	4	24	1
	Employees.....1,000..	1.2	(D)	(D)	-	(Z)	-	1.0	(D)	.8	(D)	(D)	.1	(D)
	Value added in mining.mil.dol..	19.0	(D)	(D)	-	.4	-	17.2	(D)	11.6	(D)	(D)	.9	(D)
141	Dimension stone:													
	Establishments.....number..	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	61	60	2	-	2	-	57	1	56	-	-	1	1
	Employees.....1,000..	.6	(D)	(D)	-	(D)	-	.6	(D)	(D)	-	-	(D)	(D)
	Value added in mining.mil.dol..	10.3	(D)	(D)	-	(D)	-	10.1	(D)	(D)	-	-	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	57	57	4	-	4	-	30	-	18	12	4	19	-
	Employees.....1,000..	.5	.5	(D)	-	(D)	-	.4	-	(D)	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	7.6	7.6	(D)	-	(D)	-	6.3	-	(D)	(D)	(D)	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Oregon--Continued													
14	Nonmetallic minerals, except fuels--Continued													
145	Clay and related minerals:													
	Establishments.....number..	2	2	1	-	1	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	-	4	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	6	6	-	-	-	-	6	-	6	-	-	-	-
	Employees.....1,000..	(Z)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	.4	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	160	206	Cost of supplies, total.....million dollars..	13.5	12.5
With 0 to 19 employees.....do....	142	184	Supplies used, minerals received for preparation, and purchased machinery.....do....	7.8	(NA)
With 20 to 99 employees.....do....	18	20	Cost of resales.....do....	.4	
With 100 or more employees.....do....	-	2	Purchased fuels consumed.....do....	1.3	(NA)
All employees (average for year).....1,000..	1.4	1.9	Electric energy:		
			Quantity purchased.....million kw.-hrs..	17.7	(NA)
Payroll (all employees), total for year.....million dollars..	9.5	11.2	Cost.....million dollars..	.4	(NA)
			Generated less sold.....million kw.-hrs..	2.4	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	3.6	2.4
Average for the year.....1,000..	1.2	1.6	Value of shipments and receipts (including resales), total.....do....	35.1	25.7
March.....do....	1.1	(NA)	Value of resales.....do....	.7	(NA)
May.....do....	1.3	(NA)			
August.....do....	1.3	(NA)	Value added in mining.....do....	27.3	17.7
November.....do....	1.2	(NA)			
Man-hours.....millions..	2.4	3.0	Capital expenditures (except land and mineral rights), total.....do....	5.6	4.4
Wages.....million dollars..	8.2	8.8	Mineral development and exploration.....do....	3.0	.8
			New structures and additions.....do....	.2	
Supplemental labor cost not included in payroll.....do..	.8	(NA)	New machinery and equipment.....do....	1.8	3.6
			Used plant and equipment.....do....	.7	
Legally required expenditures, including Social Security contributions.....do..	.6	(NA)	Mineral development and exploration expenditures, total.....do....	3.1	(NA)
Payments for voluntary programs.....do..	.2	(NA)	Capitalized.....do....	3.0	.8
			Expensed.....do....	.1	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Oregon, total	160	18	1.4	9.5	1.2	2.4	8.2	27.3	13.5	35.1	5.6	1.9	17.7
	COUNTIES[2]													
	Douglas county, total	12	4	.3	2.5	.2	.5	2.1	9.7	2.0	11.1	.7	.3	2.9
14	Nonmetallic minerals, except fuels	9	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lane county, total	35	4	.3	1.6	.2	.5	1.4	4.4	2.2	6.1	.4	.3	4.0
14	Nonmetallic minerals, except fuels	32	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	18	3	.1	.7	.1	.2	.6	2.2	.9	2.9	.2	.1	1.4
144	Sand and gravel	12	1	.1	.7	.1	.2	.7	1.9	1.1	2.9	.2	(D)	(D)
	Multnomah county, total	11	2	.1	.7	.1	.2	.6	2.2	.9	3.0	.2	.4	2.7
14	Nonmetallic minerals, except fuels	8	2	.1	.7	.1	.2	.6	2.2	.9	2.9	.1	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Oregon, total	160	18	-	-	10	132
0 to 4 employees	89	14	-	-	6	69
5 to 9 employees	25	-	-	-	3	22
10 to 19 employees	28	3	-	-	1	24
20 to 49 employees	14	-	-	-	-	14
50 to 99 employees	4	1	-	-	-	3
Baker county, total	4	3	-	-	-	1
0 to 19 employees	3	3	-	-	-	-
20 to 99 employees	1	-	-	-	-	1
Benton county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Clackamas county, total	8	-	-	-	-	8
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	1	-	-	-	-	1
Clatsop county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Columbia county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Coos county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Crook county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Curry county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Deschutes county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Douglas county, total	12	2	-	-	1	9
0 to 19 employees	8	1	-	-	1	6
20 to 99 employees	4	1	-	-	-	3
Jackson county, total	5	1	-	-	-	4
0 to 19 employees	5	1	-	-	-	4
Jefferson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Josephine county, total	3	2	-	-	-	1
0 to 19 employees	3	2	-	-	-	1
Klamath county, total	7	1	-	-	-	6
0 to 19 employees	7	1	-	-	-	6
Lake county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lane county, total	35	3	-	-	-	32
0 to 19 employees	31	3	-	-	-	28
20 to 99 employees	4	-	-	-	-	4
Lincoln county, total	7	1	-	-	-	6
0 to 19 employees	7	1	-	-	-	6
Linn county, total	10	1	-	-	3	6
0 to 19 employees	10	1	-	-	3	6
Malheur county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Marion county, total	7	-	-	-	1	6
0 to 19 employees	6	-	-	-	1	5
20 to 99 employees	1	-	-	-	-	1
Multnomah county, total	11	3	-	-	-	8
0 to 19 employees	9	3	-	-	-	6
20 to 99 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Oregon--Continued						
Polk county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Tillamook county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Umatilla county, total	5	1	-	-	-	4
0 to 19 employees	5	1	-	-	-	4
Union county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Wasco county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Washington county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1
Yamhill county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Offshore, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

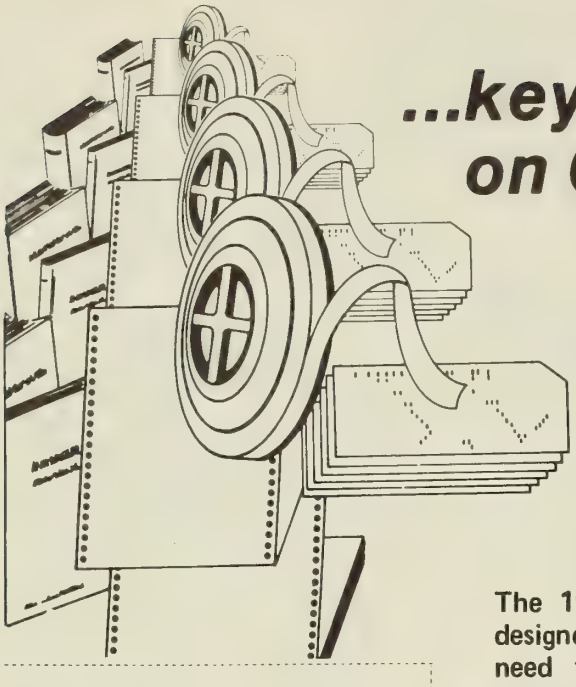
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM

WITH PAYMENT TO

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-857

1967 CENSUS OF Mineral Industries



MIC67(2)-37

AREA STATISTICS

PENNSYLVANIA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	8
5	General Statistics by County and Industry Groups: 1967 and 1963	9
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	14
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

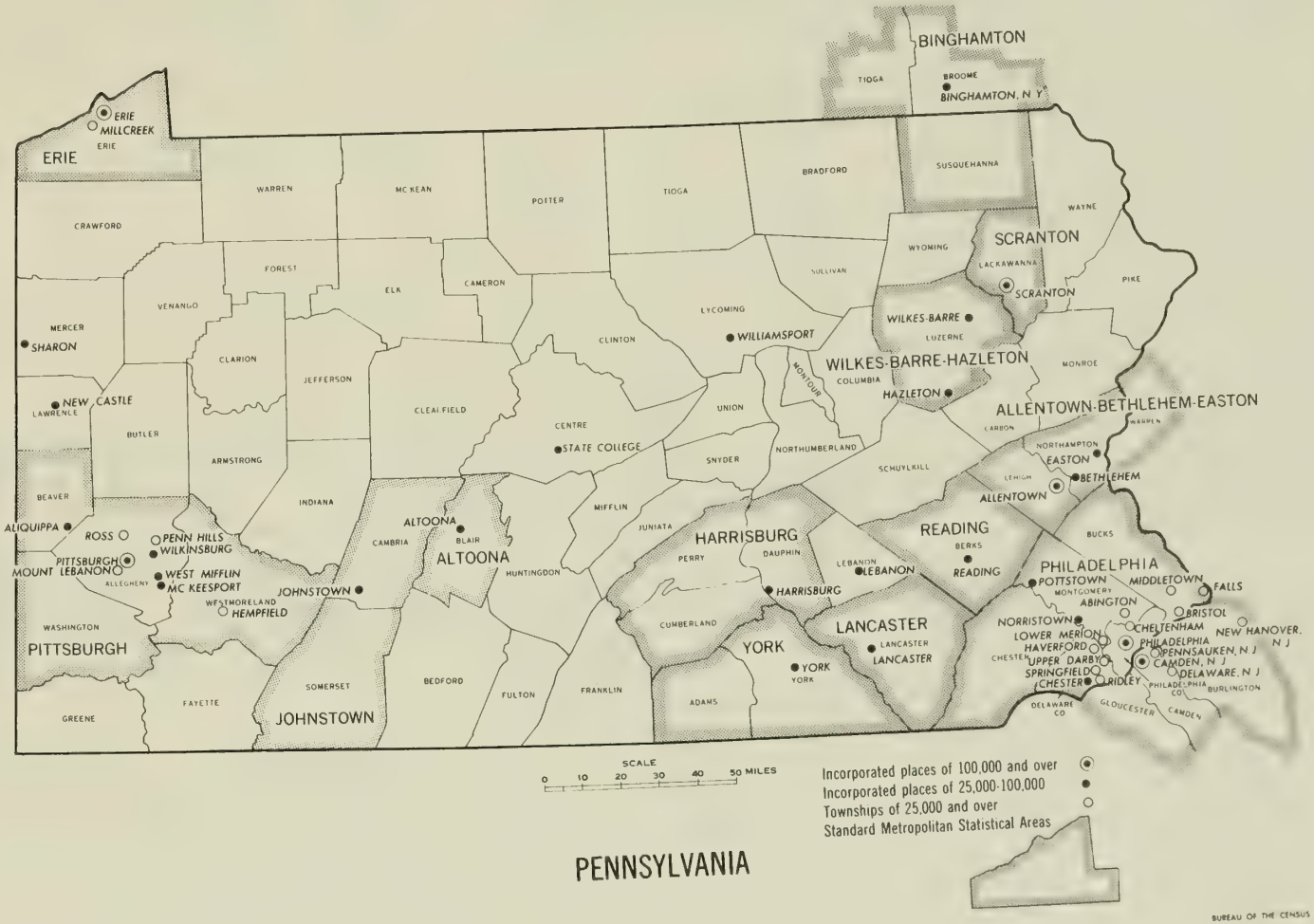
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



PENNSYLVANIA

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]2,041	392	42.3	296.7	35.7	71.2	235.1	603.0
1963	[1]3,405	407	48.9	269.6	41.3	79.5	215.8	555.3
1958	3,882	525	74.0	342.2	63.6	105.2	277.0	579.7
1954	4,538	673	105.2	402.5	93.9	152.4	342.1	631.7
Including operations in manufactures:								
1967	2,122	413	43.7	304.2	37.1	74.0	242.3	623.9
1963	3,550	437	50.7	278.9	43.1	83.0	244.7	585.3
1958	3,978	557	76.1	350.9	65.6	109.2	285.4	608.9
1954[2]	4,681	721	107.8	412.0	96.4	157.6	351.2	657.0
1939[3]	[4]3,298	(NA)	206.8	276.1	193.5	296.6	245.3	384.4
1919[5]	5,820	(NA)	341.7	480.3	323.5	(NA)	445.4	659.2
1909[5]	5,287	(NA)	373.1	210.8	361.4	(NA)	197.7	288.3
1902[6]	[4]13,009	(NA)	194.8	121.1	185.6	(NA)	111.7	191.9
Excluding oil and gas extraction industries:								
1967	1595	380	(D)	(D)	(D)	(D)	(D)	(D)
1963	2,809	404	46.1	255.6	39.9	76.5	210.0	535.1
1958	3,148	514	70.6	327.9	61.1	100.4	267.8	557.2
1954[2]	3,576	674	100.0	384.3	89.5	143.7	327.1	592.3
1939[3]	[4]2,296	(NA)	197.9	263.0	186.0	283.1	235.8	343.5
1929[7]	1,819	(NA)	289.9	437.7	276.5	(NA)	404.0	581.3
1919[5]	2,677	(NA)	330.9	467.6	314.4	(NA)	435.1	608.5
1909[8]	2,243	(NA)	365.4	205.4	354.7	(NA)	193.5	260.9
1902[9]	[4]2,825	(NA)	185.8	114.2	177.9	(NA)	106.4	173.1

Kind of operation and year	Selected expenses				Value of shipments and receipts[11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation[10] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12]399.0	([12])	32.9	([12])	949.4	85.4	(NA)
1963	159.6	143.4	57.7	59.4	889.0	85.6	8.9
1958	166.9	159.1	77.0	56.9	963.8	76.0	11.5
1954	151.9	176.6	96.0	53.0	1,050.1	59.1	15.3
Including operations in manufactures:							
1967	[13]437.3	([13])	([13])	([13])	975.6	(NA)	(NA)
1963	[14]168.1	[14]3.4	[14]57.7	[15]59.5	928.4	[15]85.8	[15]8.9
1958	[14]172.3	[14]9.2	[14]77.0	[15]57.0	998.4	[15]76.1	[15]11.5
1954[2]	[14]158.4	[14]6.6	[14]96.1	[15]53.0	1,082.0	[15]59.2	15.4
1939[3]	73.5	(NA)	16.0	(NA)	473.9	(NA)	27.7
1919[5]	146.7	[16]5.5	8.0	(NA)	819.5	(NA)	101.9
1909[5]	51.7	3.1	6.0	(NA)	349.1	(NA)	(NA)
1902[6]	29.1	(NA)	5.6	(NA)	226.6	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1963	[14]158.6	142.6	[14]48.1	[15]55.8	868.5	[15]71.7	[15]7.3
1958	[14]159.3	157.7	[14]65.8	[15]53.1	930.4	[15]62.7	[15]9.9
1954[2]	[14]144.6	176.5	[14]74.2	[15]46.2	992.7	[15]41.2	[15]13.5
1939[3]	69.4	(NA)	12.1	(NA)	425.0	(NA)	25.6
1929[7]	106.2	(NA)	7.5	15.8	695.0	(NA)	54.4
1919[5]	136.1	5.0	3.5	(NA)	753.2	(NA)	99.0
1909[8]	46.3	(Z)	2.7	(NA)	309.9	(NA)	(NA)
1902[9]	23.1	(NA)	.9	(NA)	197.0	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 855 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Pennsylvania--Continued.

[2] Excludes figures for sand and gravel mining operations in manufacturing establishments.

[3] Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite, slate, and sandstone at such operations was $924 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for basalt, if any, is not available. For statistics "Excluding oil and gas extraction industries," includes data for one nonproducing crude petroleum and natural gas establishment.

[4] Represents number of mines and quarries, number of natural gas liquids plants, and, for crude petroleum and natural gas and mining services industries, number of operating companies.

[5] Excludes figures for sand, gravel, common clay, and shale mining operations and for crushed and broken stone quarries operated as parts of cement or lime establishments. For 1939, the census included 64 sand and gravel operations with products valued at $6,619 thousand; 59 common clay and shale pits with products valued at $560 thousand; and 48 such stone quarries with products valued at $4,525 thousand. For energy used for 1919, excludes purchased electric energy. For 1939, for "all operations," the quantity of purchased electronic energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used; and for 1929, for "Excluding oil and gas extration industries," to only 2 percent.

[6] Excludes figures for sand, gravel, common clay, and shale mining operations and for crushed and broken stone quarries operated as parts of cement establishments. Includes data for lime plants producing lime valued at $1,430 thousand. Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7] Excludes figures for common clay and shale operations. There were 59 such mines reported for 1939 with products valued at $560 thousand.

[8] Includes figures for nonproducing oil and gas extraction operations. See also footnote 5.

[9] Includes figures for nonproducing oil and gas extraction operations. See also footnote 6.

[10] For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants.

[11] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants, but for 1954 includes the estimated value prior to processing of natural gas liquids contained in such gas.

[12] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13] Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15] Excludes figures for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments. For energy used and horsepower in 1963, also excludes figures for dimension stone operations in manufactures.

[16] Includes figures for gas purchased for resale without processing.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	2041	392	42.3	296.7	35.7	71.2	235.1	603.0	431.9	949.4	85.4	48.9	555.3
10	Metal mining	9	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	[2]2.1	31.3
1011	Iron ores	3	2	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1033	Zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
11	Anthracite mining	404	69	7.2	41.1	6.2	11.6	35.0	82.1	80.3	155.9	6.4	[3]11.8	120.5
111	Anthracite mining	404	69	7.2	41.1	6.2	11.6	35.0	82.1	80.3	155.9	6.4	[3]11.8	120.5
1111	Anthracite mining	372	57	6.4	36.6	5.5	10.3	30.9	74.7	76.4	146.0	5.0	[3]10.7	110.5
1112	Anthracite mining services	32	12	.8	4.5	.7	1.3	4.1	7.4	3.9	9.9	1.4	1.1	10.0
12	Bituminous coal and lignite mining	743	193	23.1	174.2	19.8	39.3	142.4	332.2	258.7	536.7	54.2	24.4	281.0
121	Bituminous coal and lignite mining	743	193	23.1	174.2	19.8	39.3	142.4	332.2	258.7	536.7	54.2	24.4	281.0
1211	Bituminous coal	709	188	22.8	172.1	19.5	38.6	140.5	327.7	256.2	530.7	53.2	24.0	275.8
1213	Bituminous and lignite mining services, n.e.c.	34	5	.3	2.1	.3	.7	1.9	4.5	2.6	6.1	1.1	.5	5.1
13	Oil and gas extraction	527	33	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.7	50.2
131	Crude petroleum and natural gas	364	23	2.6	16.6	1.9	3.9	10.0	38.6	14.6	44.6	8.7	3.8	42.4
1312	Crude petroleum	258	12	1.5	9.9	1.1	2.0	4.9	18.0	6.6	21.5	3.0	1.8	18.1
1313	Natural gas	106	11	1.1	6.7	0.9	1.9	5.1	20.6	8.0	23.0	5.6	2.1	24.4
138	Oil and gas field services	159	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1381	Drilling oil and gas wells	96	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	5.9
1389	Oil and gas field services, n.e.c.	58	2	.3	2.1	0.3	0.7	1.8	5.7	1.9	7.1	.6	(NA)	(NA)
14	Nonmetallic minerals, except fuels	358	94	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	6.1	72.3
141	Dimension stone	35	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	.9
1419	Dimension stone, n.e.c.	28	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	.9
142	Crushed and broken stone	162	63	4.2	27.7	3.4	7.3	19.9	69.2	(D)	98.4	(D)	3.7	48.4
1422	Crushed and broken limestone	118	48	3.3	22.6	2.7	6.0	16.4	56.2	31.2	79.7	7.7	2.7	37.1
1423	Crushed and broken granite	5	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	39	15	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	100	24	1.7	11.8	1.4	3.0	8.9	29.3	10.4	36.7	3.0	1.5	18.1
1442	Construction sand and gravel	94	21	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1443	Glass sand	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1445	Industrial sand, n.e.c.	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	41	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.8
1453	Fire clay	31	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.0
1459	Clay and related minerals, n.e.c.	9	-	.1	.4	0.1	0.1	0.3	1.1	.3	1.3	0.1	(NA)	(NA)
147	Chemical and fertilizer minerals	3	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	15	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

[2] Includes figures for separately reported central offices and related facilities in Massachusetts.
[3] Includes figures for separately reported central offices and related facilities in New York.

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	81	21	1.4	7.5	1.4	2.8	7.2	20.9	5.4	26.2	(NA)	1.8	30.0
142	Crushed and broken stone	30	12	0.8	4.0	0.8	1.5	4.0	14.3	3.8	18.1	(NA)	0.7	16.1
145	Clay and related minerals	32	-	0.1	0.6	0.1	0.3	0.6	2.1	0.5	2.6	(NA)	0.4	7.8

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Pennsylvania:													
	Establishments.....number..	2,041	2,027	943	657	169	117	436	111	277	48	81	567	14
	Employees.....1,000..	42.3	42.3	11.6	(D)	2.4	(D)	24.8	15.2	7.3	2.3	1.5	4.4	(Z)
	Value added in mining.mil.dol..	603.0	602.8	163.0	(D)	40.3	(D)	388.9	229.3	116.4	43.2	20.5	30.4	.2
10	Metal mining:													
	Establishments.....number..	9	9	2	1	1	-	3	3	-	-	1	3	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	(D)	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	(D)	-	-	(D)	(D)	-
1011	Iron ores:													
	Establishments.....number..	3	3	1	-	1	-	2	2	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	(D)	-	-	-	-	-
103	Lead and zinc ores:													
	Establishments.....number..	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added im mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
11	Anthracite mining:													
	Establishments.....number..	404	400	282	248	23	11	33	11	10	12	47	38	4
	Employees.....1,000..	7.2	(D)	2.7	1.7	1.0	.1	2.6	1.3	.6	.7	.8	(D)	(D)
	Value added in mining.mil.dol..	82.1	(D)	34.1	16.1	16.4	1.6	32.0	12.7	7.4	12.0	8.5	(D)	(D)
111	Anthracite mining:													
	Establishments.....number..	404	400	282	248	23	11	33	11	10	12	47	38	4
	Employees.....1,000..	7.2	(D)	2.7	1.7	1.0	.1	2.6	1.3	.6	.7	.8	(D)	(D)
	Value added in mining.mil.dol..	82.1	(D)	34.0	16.1	16.4	1.6	32.0	12.7	7.4	12.0	8.5	(D)	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	743	738	481	406	68	7	177	93	60	24	24	56	5
	Employees.....1,000..	23.1	23.1	6.6	5.6	1.0	.1	14.3	11.8	1.6	.9	.6	1.7	(Z)
	Value added in mining.mil.dol..	332.2	33.0	88.4	71.5	16.1	.9	228.5	186.2	25.0	17.2	10.6	4.5	.3
121	Bituminous coal and lignite mining:													
	Establishments.....number..	743	738	481	406	68	7	177	93	60	24	24	56	5
	Employees.....1,000..	23.1	23.1	6.6	5.6	1.0	.1	14.3	11.8	1.6	.9	.6	1.7	(Z)
	Value added in mining.mil.dol..	332.2	33.0	88.4	71.5	16.1	.9	228.5	186.2	25.0	17.2	10.6	4.5	(Z)
13	Oil and gas extraction:													
	Establishments.....number..	527	524	98	-	-	98	-	-	-	-	4	422	3
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	1.8	(D)
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	22.2	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	364	361	98	-	-	98	-	-	-	-	-	263	3
	Employees.....1,000..	2.6	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	38.6	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
1321	Natural gas liquids:													
	Establishments.....number..	4	4	-	-	-	-	-	-	-	-	4	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Pennsylvania-Continued													
138	Oil and gas field services:													
	Establishments.....number..	159	159	-	-	-	-	-	-	-	-	-	159	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	358	356	80	2	77	1	223	4	207	12	5	48	2
	Employees.....1,000..	(D)	6.8	.5	(D)	(D)	(D)	(D)	(D)	5.1	.7	.1	(D)	(D)
	Value added in mining.mil.dol..	(D)	107.7	9.6	(D)	(D)	(D)	(D)	(D)	84.0	14.0	.9	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	35	35	29	-	29	-	6	-	6	-	-	-	-
	Employees.....1,000..	(D)	(D)	1	-	.1	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	1.1	-	1.1	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	162	161	3	1	2	-	148	3	144	1	2	8	1
	Employees.....1,000..	4.2	(D)	(D)	(D)	(D)	-	3.9	(D)	3.7	(D)	(D)	(D)	(D)
	Value added in mining.mil.dol..	69.2	(D)	(D)	(D)	(D)	-	67.2	(D)	63.2	(D)	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	100	99	7	-	6	1	54	-	43	11	1	37	1
	Employees.....1,000..	1.7	(D)	(D)	-	(D)	(D)	1.5	-	(D)	(D)	(D)	.2	(D)
	Value added in mining.mil.dol..	29.3	(D)	(D)	-	(D)	(D)	26.7	-	(D)	(D)	(D)	1.3	(D)
145	Clay and related minerals:													
	Establishments.....number..	41	41	34	1	33	-	7	1	6	-	-	-	-
	Employees.....1,000..	(D)	(D)	.2	(D)	(D)	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	5.3	(D)	(D)	-	(D)	(D)	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	2	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	15	15	7	-	7	-	8	-	8	-	-	-	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	.4	-	.4	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	2041	3405	Cost of supplies, total.....million dollars..	431.9	420.1
With 0 to 19 employees.....do....	1649	2998	Supplies used, minerals received for preparation, and purchased machinery.....do....	350.8	(NA)
With 20 to 99 employees.....do....	304	335	Cost of resales.....do....	10.3	(NA)
With 100 or more employees.....do....	88	72	Purchased fuels consumed.....do....	15.0	(NA)
All employees (average for year).....1,000..	42.3	48.9	Electric energy:		
Payroll (all employees), total for year.....million dollars..	296.7	269.6	Quantity purchased.....million kw.-hrs..	1760.1	(NA)
			Cost.....million dollars..	22.8	(NA)
			Generated less sold.....million kw.-hrs..	68.4	(NA)
			Contract work.....million dollars..	32.9	57.7
Production, development, and exploration workers:					
Average for the year.....1,000..	35.7	41.3	Value of shipments and receipts (including resales), total.....do....	949.4	889.9
March.....do....	35.8	(NA)	Value of resales.....do....	11.9	(NA)
May.....do....	35.5	(NA)			
August.....do....	36.1	(NA)			
November.....do....	35.6	(NA)	Value added in mining.....do....	603.0	555.3
Man-hours.....millions..	71.2	79.5	Capital expenditures (except land and mineral rights), total.....do....	85.4	85.6
Wages.....million dollars..	235.1	215.8	Mineral development and exploration.....do....	11.8	9.4
			New structures and additions.....do....	12.8	76.2
Supplemental labor cost not included in payroll.....do..	40.1	(NA)	New machinery and equipment.....do....	55.5	
			Used plant and equipment.....do....	5.3	
			Mineral development and exploration expenditures, total.....do....	17.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	18.4	(NA)	Capitalized.....do....	11.8	9.4
Payments for voluntary programs.....do..	21.7	(NA)	Expensed.....do....	6.0	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Pennsylvania	2,053	395	42.7	300.3	35.7	71.2	235.1	603.0	431.9	949.4	85.4	48.9	555.3
	COUNTIES[2]													
	Adams county, total	6	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.0
14	Nonmetallic minerals, except fuel	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.0
142	Crushed and broken stone	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Allegheny county, total	111	19	2.7	21.4	1.7	3.2	12.2	29.2	35.7	61.2	3.7	2.4	24.2
12	Bituminous coal and lignite mining	48	15	2.2	18.4	1.4	2.6	10.2	22.3	33.2	52.5	3.0	1.6	23.3
121	Bituminous coal and lignite mining	48	15	2.2	18.4	1.4	2.6	10.2	22.3	33.2	52.5	3.0	1.6	23.3
13	Oil and gas extraction	47	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	.8
131	Crude petroleum and natural gas	39	-	.1	.8	.1	.1	.3	.4	.3	.5	.2	.2	.6
14	Nonmetallic minerals, except fuel	13	3	.3	1.9	.2	.5	1.5	6.1	2.0	7.8	.3	(Z)	.2
144	Sand and gravel	9	3	.2	1.7	.2	.4	1.4	5.8	1.6	7.1	.3	(D)	(D)
	Armstrong county, total	102	24	1.6	11.4	1.4	3.0	9.7	27.9	14.5	34.8	7.6	1.4	18.8
12	Bituminous coal and lignite mining	55	19	1.3	9.3	1.2	2.3	8.7	22.6	13.3	29.5	6.5	1.1	13.9
121	Bituminous coal and lignite mining	55	19	1.3	9.3	1.2	2.3	8.7	22.6	13.3	29.5	6.5	1.1	13.9
13	Oil and gas extraction	37	3	.2	1.1	.2	.4	.5	3.1	.7	3.2	.5	.2	4.1
131	Crude petroleum and natural gas	28	3	.2	1.0	.1	.4	.4	3.0	.6	3.1	.5	.1	3.8
14	Nonmetallic minerals, except fuel	10	2	.1	.8	.1	.2	.5	2.6	.9	3.0	.6	.1	.7
	Beaver county, total	17	6	.2	1.3	.2	.5	1.3	2.6	1.8	4.0	.3	.2	3.1
12	Bituminous coal and lignite mining	8	4	.1	.9	.1	.3	.8	1.5	1.6	2.9	.2	.1	1.7
121	Bituminous coal and lignite mining	8	4	.1	.9	.1	.3	.8	1.5	1.6	2.9	.2	.1	1.7
	Bedford county, total	16	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	5.3
14	Nonmetallic minerals, except fuels	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Berks county, total	18	4	1.2	8.4	1.1	2.2	7.1	15.1	13.2	26.5	1.9	(D)	(D)
10	Metal mining	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	14	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.4
142	Crushed and broken stone	10	3	.2	1.5	.2	.5	1.2	3.2	1.8	4.3	.8	.2	2.3
	Bucks county, total	16	3	.3	2.2	.3	.5	1.7	8.4	2.0	9.6	.8	.4	8.7
14	Nonmetallic minerals, except fuel	15	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	5	1	.2	1.4	.2	.3	1.2	5.2	.7	5.7	.2	(D)	(D)
	Butler county, total	73	8	.6	3.7	.6	1.3	3.4	7.9	6.4	12.7	1.6	.7	7.0
12	Bituminous coal and lignite mining	29	5	.4	2.7	.4	.9	2.5	5.1	4.8	9.1	.8	.5	5.2
121	Bituminous coal and lignite mining	29	5	.4	2.7	.4	.9	2.5	5.1	4.8	9.1	.8	.5	5.2
14	Nonmetallic minerals, except fuel	8	3	.2	.8	.1	.4	.7	2.6	1.6	3.4	.7	.1	1.3
142	Crushed and broken stone	4	2	.1	.6	.1	.3	.6	2.1	1.3	2.7	.7	(Z)	.6

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Pennsylvania--Continued													
	COUNTIES[2]--Continued													
	Cambria county, total	81	27	3.1	25.4	2.7	5.2	20.6	34.5	39.6	66.0	8.0	3.2	28.6
12	Bituminous coal and lignite mining	73	27	3.1	25.4	2.7	5.2	20.6	34.0	(D)	65.6	(D)	3.0	28.4
121	Bituminous coal and lignite mining	73	27	3.1	25.4	2.7	5.2	20.6	34.0	(D)	65.6	(D)	3.0	28.4
	Carbon county, total	11	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
11	Anthracite mining	7	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.6
111	Anthracite mining	7	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.6
	Centre county, total	28	5	.4	2.3	.4	.8	2.0	7.2	2.7	9.0	.9	.4	4.2
12	Bituminous coal and lignite mining	19	3	.3	1.8	.3	.6	1.6	4.4	2.1	5.6	.8	.4	3.7
121	Bituminous coal and lignite mining	19	3	.3	1.8	.3	.6	1.6	4.4	2.1	5.6	.8	.4	3.7
	Chester county, total	8	3	.2	.9	.1	.3	.8	2.7	.8	3.3	.3	.3	1.8
14	Nonmetallic minerals, except fuel	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.8
142	Crushed and broken stone	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Clarion county, total	57	9	.6	3.6	.5	1.3	3.2	9.7	5.7	13.4	2.0	.8	10.9
12	Bituminous coal and lignite mining	20	7	.5	2.8	.4	1.0	2.5	8.5	5.2	11.8	1.9	.6	8.9
121	Bituminous coal and lignite mining	20	7	.5	2.8	.4	1.0	2.5	8.5	5.2	11.8	1.9	.6	8.9
13	Oil and gas extraction	35	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Clearfield county, total	111	26	1.8	10.3	1.6	3.4	9.1	23.8	17.6	37.5	3.9	2.3	26.2
12	Bituminous coal and lignite mining	87	23	1.5	8.8	1.4	2.9	7.7	19.1	15.9	32.0	3.3	2.1	22.4
121	Bituminous coal and lignite mining	87	23	1.5	8.8	1.4	2.9	7.7	19.1	15.9	32.0	3.3	2.1	22.4
14	Nonmetallic minerals, except fuel	13	2	.1	.7	.1	.2	.6	2.7	.7	3.2	.2	.1	1.9
	Dauphin county	14	3	.1	.7	.1	.3	.7	2.2	1.9	3.7	.3	.2	2.1
	Delaware county, total	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.8
14	Nonmetallic minerals, except fuel	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Elk county, total	30	2	.2	1.1	.2	.4	1.0	2.1	1.9	3.6	.4	.3	2.7
13	Oil and gas extraction	18	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	15	1	.1	.7	.1	.2	.6	1.2	.6	1.6	.2	.2	1.3
	Erie county	17	2	.1	1.4	.1	.3	1.2	2.8	1.8	4.2	.5	.1	2.4
	Fayette county, total	56	7	.8	5.5	.7	1.3	4.7	17.1	31.2	47.2	1.1	.9	11.0
12	Bituminous coal and lignite mining	38	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	9.0
121	Bituminous coal and lignite mining	38	4	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	9.0
14	Nonmetallic minerals, except fuel	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Pennsylvania--Continued													
	COUNTIES[2]--Continued													
	Franklin county, total	11	5	.3	1.5	.2	.4	.9	4.3	2.2	6.3	.2	.2	1.7
14	Nonmetallic minerals, except fuel	11	5	.3	1.5	.2	.4	.9	4.3	2.2	6.3	.2	.1	1.7
142	Crushed and broken stone	7	4	.2	1.3	.1	.3	.7	3.9	2.0	5.7	.1	(D)	(D)
	Greene county, total	41	7	3.4	26.9	3.0	5.8	23.3	48.9	19.2	64.8	3.3	3.6	47.3
12	Bituminous coal and lignite mining	10	6	3.3	26.4	3.0	5.7	22.9	47.8	19.0	63.7	3.2	3.5	46.2
121	Bituminous coal and lignite mining	10	6	3.3	26.4	3.0	5.7	22.9	47.8	19.0	63.7	3.2	3.5	46.2
13	Oil and gas extraction	31	1	.1	.5	.1	.2	.4	1.1	.2	1.1	.1	.1	1.1
	Huntingdon county, total	13	3	.3	1.8	.3	.5	1.4	4.7	1.4	6.0	.2	.3	3.2
14	Nonmetallic minerals, except fuel	7	3	.3	1.7	.3	.5	1.4	4.6	1.3	5.7	.1	(D)	(D)
144	Sand and gravel	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Indiana county, total	114	27	2.3	17.8	1.9	4.0	14.3	38.4	27.9	52.1	14.2	2.3	25.5
12	Bituminous coal and lignite mining	77	26	2.1	16.4	1.8	3.7	13.3	33.8	24.0	46.1	11.7	1.9	20.9
121	Bituminous coal and lignite mining	77	26	2.1	16.4	1.8	3.7	13.3	33.8	24.0	46.1	11.7	1.9	20.9
13	Oil and gas extraction	33	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jefferson county, total	71	9	.7	4.1	.6	1.4	3.8	9.7	6.1	14.3	1.5	.9	8.3
12	Bituminous coal and lignite mining	45	7	.5	2.7	.4	.9	2.5	5.4	4.0	9.0	.5	.6	5.9
121	Bituminous coal and lignite mining	45	7	.5	2.7	.4	.9	2.5	5.4	4.0	9.0	.5	.6	5.9
13	Oil and gas extraction	25	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	16	1	.2	1.1	.2	.3	1.1	3.9	1.7	4.6	.9	.2	2.2
	Lackawanna county, total	32	8	.7	4.5	.4	.8	1.9	7.0	5.5	10.9	1.6	1.3	9.5
11	Anthracite mining	27	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	9.3
111	Anthracite mining	27	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	9.3
14	Nonmetallic minerals, except fuel	4	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lancaster county, total	22	5	.3	2.2	.2	.5	1.4	4.8	2.9	6.8	1.0	.3	7.1
14	Nonmetallic minerals, except fuel	19	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	14	5	.3	1.8	.2	.4	1.1	3.8	2.5	5.5	.8	.3	5.3
	Lawrence county, total	22	4	.5	3.3	.4	.8	2.4	6.4	5.3	11.1	.6	.5	6.1
14	Nonmetallic minerals, except fuel	11	3	.4	2.9	.3	.6	2.0	5.3	3.2	8.1	.4	.3	4.0
142	Crushed and broken stone	7	3	.4	2.6	.3	.6	1.8	4.7	3.0	7.4	.4	.3	3.6
	Lebanon county, total	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Pennsylvania--Continued													
	COUNTIES[2]--Continued													
	Lehigh county, total	5	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	4	2	.1	.8	.1	.2	.6	2.0	(D)	2.6	(D)	(D)	(D)
	Luzerne county, total	68	22	3.7	22.3	3.0	5.7	18.4	38.5	25.3	62.6	1.1	4.6	47.3
11	Anthracite mining	54	19	3.1	18.6	2.5	4.7	15.2	32.0	23.0	54.4	.6	4.2	46.0
111	Anthracite mining	54	19	3.1	18.6	2.5	4.7	15.2	32.0	23.0	54.4	.6	4.2	46.0
14	Nonmetallic minerals, except fuel	12	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lycoming county, total	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.8
14	Nonmetallic minerals, except fuel	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	McKean county, total	186	12	1.3	8.5	1.0	2.0	5.1	12.8	4.9	15.2	2.5	1.4	15.4
13	Oil and gas extraction	181	12	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	15.2
131	Crude petroleum and natural gas	122	9	1.0	6.9	.8	1.5	3.8	9.6	3.2	10.7	2.1	1.1	13.3
138	Oil and gas field services	58	3	.3	1.5	.2	.5	1.3	2.8	1.1	3.6	.4	.2	1.9
	Mercer county, total	20	6	.2	1.5	.2	.5	1.4	3.6	1.8	4.8	.6	.3	3.3
12	Bituminous coal and lignite mining	9	3	.1	.9	.1	.3	.8	2.3	1.2	3.1	.4	.2	2.8
121	Bituminous coal and lignite mining	9	3	.1	.9	.1	.3	.8	2.3	1.2	3.1	.4	.2	2.8
14	Nonmetallic minerals, except fuel	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.5
	Mifflin county, total	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Montgomery county, total	22	7	.8	6.2	.5	.9	3.0	7.9	8.3	15.1	1.1	.4	3.6
14	Nonmetallic minerals, except fuel	15	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	8	5	.6	4.5	.4	.8	2.8	7.6	8.2	14.7	1.0	(D)	(D)
	Northampton county, total	9	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	.7
14	Nonmetallic minerals, except fuel	9	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Northumberland county, total	76	6	.6	3.2	.6	1.0	2.8	7.5	9.4	15.5	1.4	(D)	(D)
11	Anthracite mining	74	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.2	13.1
111	Anthracite mining	74	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Philadelphia	18	-	.1	.9	.1	.1	.4	.9	1.4	2.2	.1	.2	1.8

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Pennsylvania--Continued													
	COUNTIES[2]--Continued													
	Schuylkill county, total.....	192	35	2.9	16.6	2.5	4.8	14.3	32.8	41.6	71.8	2.6	4.3	42.2
11	Anthracite mining.....	183	32	2.5	14.4	2.2	4.2	12.4	29.3	38.1	65.0	2.4	4.2	43.2
111	Anthracite mining.....	183	32	2.5	14.4	2.2	4.2	12.4	29.3	38.1	65.0	2.4	4.2	43.2
14	Nonmetallic minerals, except fuel.....	6	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	(NA)
	Somerset county, total.....	90	18	1.3	8.5	1.2	2.4	8.0	19.2	11.3	28.2	2.3	1.4	16.5
12	Bituminous coal and lignite mining.....	76	16	1.2	8.1	1.1	2.3	7.7	18.5	11.0	27.3	2.3	1.3	15.1
121	Bituminous coal and lignite mining.....	76	16	1.2	8.1	1.1	2.3	7.7	18.5	11.0	27.3	2.3	1.3	15.1
	Tioga county, total.....	11	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining.....	10	1	.1	1.0	.1	.3	.8	3.0	2.2	4.3	.9	.1	1.2
121	Bituminous coal and lignite mining.....	10	1	.1	1.0	.1	.3	.8	3.0	2.2	4.3	.9	.1	1.2
	Venango county, total.....	70	4	.3	1.7	.3	.5	1.4	2.6	1.6	3.7	.5	.7	3.4
13	Oil and gas extraction.....	59	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	45	2	.2	.8	.2	.3	.7	.8	.4	1.0	.2	.5	1.4
	Warren county, total.....	51	1	.2	1.0	.1	.3	.7	3.2	1.5	4.1	.6	.2	1.9
13	Oil and gas extraction.....	48	1	.1	.8	.1	.2	.5	2.5	1.2	3.2	.5	.2	1.7
131	Crude petroleum and natural gas.....	29	1	.1	.6	.1	.1	.4	2.1	.9	2.5	.5	.1	1.1
	Washington county, total.....	65	15	4.3	35.1	3.7	7.1	28.6	71.6	41.3	103.9	9.1	4.0	55.7
12	Bituminous coal and lignite mining.....	35	15	4.2	34.5	3.6	7.0	28.1	70.6	40.8	102.6	8.8	3.7	54.3
121	Bituminous coal and lignite mining.....	35	15	4.2	34.5	3.6	7.0	28.1	70.6	40.8	102.6	8.8	3.7	54.3
13	Oil and gas extraction.....	27	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Westmoreland county, total.....	78	9	1.1	8.2	1.0	2.0	6.9	20.5	7.6	26.3	1.8	1.4	21.0
12	Bituminous coal and lignite mining.....	42	4	.8	5.7	.7	1.3	4.8	12.7	5.2	17.5	.4	1.2	14.9
121	Bituminous coal and lignite mining.....	42	4	.8	5.7	.7	1.3	4.8	12.7	5.2	17.5	.4	1.2	14.9
13	Oil and gas extraction.....	25	2	.1	1.2	.1	.3	1.0	4.4	1.3	5.0	.6	.1	4.7
14	Nonmetallic minerals, except fuel.....	10	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
	York county, total.....	14	4	.3	2.0	.2	.5	1.5	3.1	1.4	4.2	.2	.3	3.9
14	Nonmetallic minerals, except fuel.....	13	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone.....	7	4	.2	1.9	.2	.5	1.3	2.7	1.2	3.7	.2	.3	3.6

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Pennsylvania, total	2,041	9	404	743	527	358
0 to 4 employees	1,092	4	208	347	412	121
5 to 9 employees	265	1	74	91	51	48
10 to 19 employees	292	1	53	112	31	95
20 to 49 employees	218	-	39	89	21	69
50 to 99 employees	86	-	18	49	7	12
100 to 249 employees	60	1	10	35	3	11
250 to 499 employees	21	-	1	16	2	2
500 to 999 employees	5	2	-	3	-	-
1,000 to 2,499 employees	2	-	1	1	-	-
Adams county, total	6	-	-	1	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	1	-	-
100 to 249 employees	1	-	-	-	-	1
Allegheny county, total	111	-	3	48	47	13
0 to 19 employees	92	-	3	33	46	10
20 to 99 employees	9	-	-	6	1	2
100 to 249 employees	9	-	-	8	-	1
250 employees and over	1	-	-	1	-	-
Armstrong county, total	102	-	-	55	37	10
0 to 19 employees	78	-	-	36	34	8
20 to 99 employees	21	-	-	16	3	2
100 to 249 employees	3	-	-	3	-	-
Beaver county, total	17	-	-	8	4	5
0 to 19 employees	11	-	-	4	4	3
20 to 99 employees	6	-	-	4	-	2
Bedford county, total	16	-	-	7	4	5
0 to 19 employees	12	-	-	6	4	2
20 to 99 employees	3	-	-	1	-	2
100 to 249 employees	1	-	-	-	-	1
Berks county, total	18	1	2	-	1	14
0 to 19 employees	14	-	2	-	1	11
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
250 employees and over	1	1	-	-	-	-
Blair county, total	14	-	-	4	1	9
0 to 19 employees	14	-	-	4	1	9
Bradford county, total	10	-	-	2	6	2
0 to 19 employees	9	-	-	2	6	1
20 to 99 employees	1	-	-	-	-	1
Bucks county, total	16	-	1	-	-	15
0 to 19 employees	13	-	1	-	-	12
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Butler county, total	73	-	-	29	36	8
0 to 19 employees	65	-	-	24	36	5
20 to 99 employees	8	-	-	5	-	3
Cambria county, total	81	-	1	73	4	3
0 to 19 employees	54	-	1	46	4	3
20 to 99 employees	19	-	-	19	-	-
100 to 249 employees	3	-	-	3	-	-
250 employees and over	5	-	-	5	-	-
Cameron county, total	10	-	-	1	9	-
0 to 19 employees	10	-	-	1	9	-
Carbon county, total	11	-	7	-	1	3
0 to 19 employees	6	-	4	-	1	1
20 to 99 employees	4	-	2	-	-	2
100 to 249 employees	1	-	1	-	-	-
Centre county, total	28	-	2	19	1	6
0 to 19 employees	23	-	2	16	1	4
20 to 99 employees	5	-	-	3	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Pennsylvania--Continued						
Chester county, total	8	-	-	1	-	7
0 to 19 employees	5	-	-	1	-	4
20 to 99 employees	3	-	-	-	-	3
Clarion county, total	57	-	-	20	35	2
0 to 19 employees	48	-	-	13	33	2
20 to 99 employees	8	-	-	6	2	-
100 to 249 employees	1	-	-	1	-	-
Clearfield county, total	111	-	-	87	11	13
0 to 19 employees	86	-	-	64	10	12
20 to 99 employees	21	-	-	19	1	1
100 to 249 employees	4	-	-	4	-	-
Clinton county, total	7	-	-	3	2	2
0 to 19 employees	5	-	-	1	2	2
20 to 99 employees	2	-	-	2	-	-
Columbia county, total	13	-	10	-	-	3
0 to 19 employees	12	-	9	-	-	3
20 to 99 employees	1	-	1	-	-	-
Crawford county, total	16	-	-	-	14	2
0 to 19 employees	15	-	-	-	13	2
20 to 99 employees	1	-	-	-	1	-
Cumberland county, total	11	-	-	-	1	10
0 to 19 employees	9	-	-	-	1	8
20 to 99 employees	2	-	-	-	-	2
Dauphin county, total	14	-	10	-	-	4
0 to 19 employees	11	-	8	-	-	3
20 to 99 employees	3	-	2	-	-	1
Delaware county, total	6	-	-	1	-	5
0 to 19 employees	4	-	-	1	-	3
20 to 99 employees	2	-	-	-	-	2
Elk county, total	30	-	1	10	18	1
0 to 19 employees	28	-	1	9	17	1
20 to 99 employees	2	-	-	1	1	-
Erie county, total	17	-	-	-	12	5
0 to 19 employees	15	-	-	-	11	4
20 to 99 employees	2	-	-	-	1	1
Fayette county, total	56	-	1	38	12	5
0 to 19 employees	49	-	1	34	12	2
20 to 99 employees	5	-	-	2	-	3
100 to 249 employees	1	-	-	1	-	-
250 employees and over	1	-	-	1	-	-
Forest county, total	13	-	-	-	12	1
0 to 19 employees	13	-	-	-	12	1
Franklin county, total	11	-	-	-	-	11
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	-	-	-	-	1
Fulton county, total	4	-	-	2	-	2
0 to 19 employees	4	-	-	2	-	2
Greene county, total	41	-	-	10	31	-
0 to 19 employees	34	-	-	4	30	-
20 to 99 employees	2	-	-	1	1	-
250 employees and over	5	-	-	5	-	-
Huntingdon county, total	13	-	-	5	1	7
0 to 19 employees	10	-	-	5	1	4
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Indiana county, total	114	-	3	77	33	1
0 to 19 employees	87	-	3	51	32	1
20 to 99 employees	21	-	-	20	1	-
100 to 249 employees	6	-	-	6	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Pennsylvania--Continued						
Jefferson county, total	71	-	-	45	25	1
0 to 19 employees	62	-	-	38	23	1
20 to 99 employees	8	-	-	7	1	-
100 to 249 employees	1	-	-	-	1	-
Juniata county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lackawanna county, total	32	-	27	-	1	4
0 to 19 employees	24	-	21	-	-	3
20 to 99 employees	6	-	5	-	1	-
100 to 249 employees	1	-	1	-	-	-
250 employees and over	1	-	-	-	-	1
Lancaster county, total	22	1	2	-	-	19
0 to 19 employees	17	1	2	-	-	14
20 to 99 employees	5	-	-	-	-	5
Lawrence county, total	22	-	1	7	3	11
0 to 19 employees	18	-	1	6	3	8
20 to 99 employees	2	-	-	1	-	1
100 to 249 employees	2	-	-	-	-	2
Lebanon county, total	4	1	1	-	-	2
0 to 19 employees	2	-	1	-	-	1
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	1	-	-	-	-
Lehigh county, total	5	1	-	-	-	4
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	1	-	-	-	-
Luzerne county, total	68	-	54	-	2	12
0 to 19 employees	46	-	35	-	2	9
20 to 99 employees	15	-	13	-	-	2
100 to 249 employees	5	-	4	-	-	1
250 employees and over	2	-	2	-	-	-
Lycoming county, total	8	-	-	1	-	7
0 to 19 employees	6	-	-	1	-	5
20 to 99 employees	2	-	-	-	-	2
McKean county, total	186	-	-	1	181	4
0 to 19 employees	174	-	-	1	169	4
20 to 99 employees	9	-	-	-	9	-
100 to 249 employees	2	-	-	-	2	-
250 employees and over	1	-	-	-	1	-
Mercer county, total	20	-	-	9	4	7
0 to 19 employees	14	-	-	6	4	4
20 to 99 employees	6	-	-	3	-	3
Mifflin county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Monroe county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Montgomery county, total	22	-	1	3	3	15
0 to 19 employees	15	-	1	3	2	9
20 to 99 employees	6	-	-	-	1	5
250 employees and over	1	-	-	-	-	1
Montour county, total	2	-	1	-	-	1
0 to 19 employees	1	-	1	-	-	-
20 to 99 employees	1	-	-	-	-	1
Northampton county, total	9	-	-	-	-	9
0 to 19 employees	5	-	-	-	-	5
20 to 99 employees	4	-	-	-	-	4
Northumberland county, total	76	-	74	-	-	2
0 to 19 employees	70	-	68	-	-	2
20 to 99 employees	6	-	6	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Pennsylvania--Continued						
Perry county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Philadelphia, total	18	4	2	2	4	6
0 to 19 employees	18	4	2	2	4	6
Potter county, total	13	-	-	-	12	1
0 to 19 employees	13	-	-	-	12	1
Schuylkill county, total	192	-	183	3	-	6
0 to 19 employees	157	-	151	3	-	3
20 to 99 employees	31	-	28	-	-	3
100 to 249 employees	4	-	4	-	-	-
Snyder county, total	2	-	2	-	-	-
0 to 19 employees	2	-	2	-	-	-
Somerset county, total	90	1	-	76	9	4
0 to 19 employees	72	1	-	60	8	3
20 to 99 employees	16	-	-	14	1	1
100 to 249 employees	2	-	-	2	-	-
Sullivan county, total	2	-	2	-	-	-
0 to 19 employees	2	-	2	-	-	-
Susquehanna county, total	10	-	-	-	-	10
0 to 19 employees	9	-	-	-	-	9
20 to 99 employees	1	-	-	-	-	1
Tioga county, total	11	-	-	10	1	-
0 to 19 employees	10	-	-	9	1	-
20 to 99 employees	1	-	-	1	-	-
Union county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Venango county, total	70	-	-	4	59	7
0 to 19 employees	66	-	-	4	57	5
20 to 99 employees	4	-	-	-	2	2
Warren county, total	51	-	-	-	48	3
0 to 19 employees	50	-	-	-	47	3
20 to 99 employees	1	-	-	-	1	-
Washington county, total	65	-	1	35	27	2
0 to 19 employees	50	-	1	20	27	2
20 to 99 employees	3	-	-	3	-	-
100 to 249 employees	5	-	-	5	-	-
250 employees and over	7	-	-	7	-	-
Wayne county, total	4	-	1	-	1	2
0 to 19 employees	4	-	1	-	1	2
Westmoreland county, total	78	-	1	42	25	10
0 to 19 employees	69	-	1	38	23	7
20 to 99 employees	6	-	-	1	2	3
100 to 249 employees	2	-	-	2	-	-
250 employees and over	1	-	-	1	-	-
Wyoming county, total	6	-	-	-	1	5
0 to 19 employees	5	-	-	-	1	4
20 to 99 employees	1	-	-	-	-	1
York county, total	14	-	1	-	-	13
0 to 19 employees	10	-	1	-	-	9
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-856

1967 CENSUS OF Mineral Industries



MIC67(2)-38

AREA STATISTICS

RHODE ISLAND

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	6
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

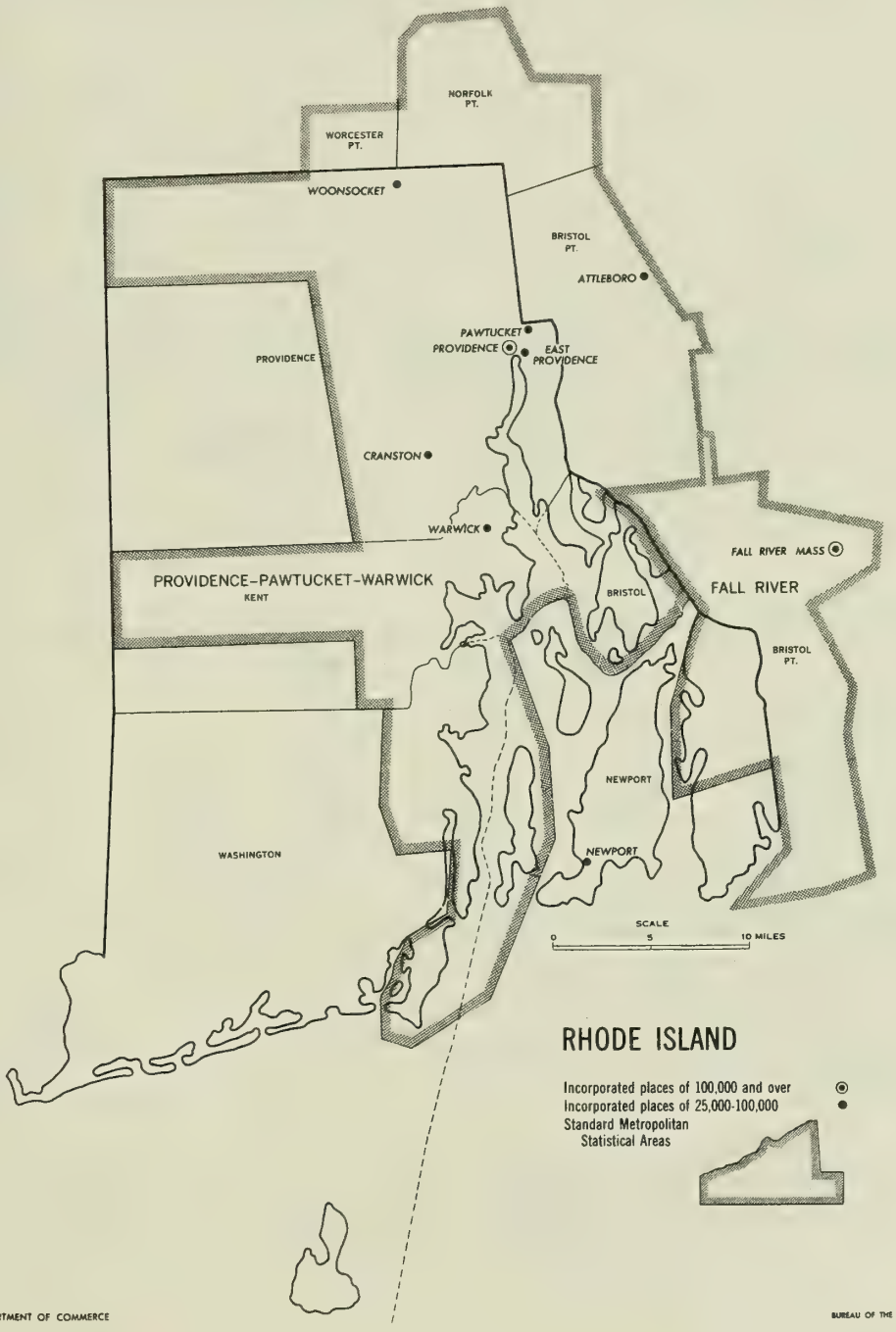

NORFOLK PT.
WORCESTER PT.
WOONSOCKET
BRISTOL PT.
ATTLEBORO
PAWTUCKET
PROVIDENCE
EAST PROVIDENCE
PROVIDENCE
CRANSTON
WARWICK
PROVIDENCE–PAWTUCKET–WARWICK
KENT
FALL RIVER MASS
FALL RIVER
BRISTOL
BRISTOL PT.
NEWPORT
NEWPORT
WASHINGTON
SCALE
0 5 10 MILES
RHODE ISLAND
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]22	7	.3	2.1	.3	.6	1.7	3.3
1963	[1]21	4	.2	1.1	.2	.4	.9	2.0
1958	18	3	.1	.6	.1	.2	.5	1.4
1954	20	3	.2	.6	.1	.3	.5	1.1
Including operations in manufactures:								
1967	25	7	.3	2.1	.3	.6	1.7	3.7
1963	23	4	(D)	(D)	(D)	(D)	(D)	(D)
1958	22	4	.2	.9	.2	.3	.7	1.9
1954[2]	21	3	.2	.6	.1	.3	.5	1.1
1939	[3]21	(NA)	.3	.3	.2	.4	.3	.6
1929	14	(NA)	.3	.5	.3	(NA)	.4	.6
1919[4]	14	(NA)	.4	.5	.4	(NA)	.4	.8
1909[4]	21	(NA)	.7	.5	.7	(NA)	.4	.7
1902[5]	[3]22	(NA)	.7	.5	[6].7	(NA)	.4	.7

Kind of operation and year	Selected expenses				Value of shipments and receipts[7]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[8]1.5	([8])	.6	([8])	4.8	.6	(NA)
1963	[9].5	([9])	.3	.1	2.7	.3	(Z)
1958	.3	-	.1	.2	1.6	.2	(Z)
1954	.4	-	(Z)	.2	1.5	.2	(Z)
Including operations in manufactures:							
1967	[10]2.1	([10])	([10])	([10])	5.2	(NA)	(NA)
1963	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1958	[11].5	([11])	[11].1	[12].2	2.4	[12].2	[12](Z)
1954[2]	.4	-	(Z)	.2	1.4	.2	(Z)
1939	.2	(NA)	(Z)	(NA)	.8	(NA)	(Z)
1929	.2	(NA)	(Z)	(Z)	.8	(NA)	(Z)
1919[4]	.2	-	(Z)	(NA)	1.0	(NA)	[13].1
1909[4]	.2	-	-	(NA)	.9	(NA)	(NA)
1902[5]	.1	(NA)	-	(NA)	.8	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time, data for single unit establishments without paid employees were excluded from the census. In 1963, there were 0 single unit establishments without paid employees in this State.

[2]Except for number of establishments, excludes data for one dimension granite operation classified in the manufacturing industries. Excludes data for any sand and gravel mining operations in manufacturing establishments.

[3]Represents number of mines and quarries.

[4]Excludes data for sand and gravel mining operations and any stone quarries operated as parts of lime plants. There were 2 such sand and gravel establishments in 1929.

[5]Excludes data for sand and gravel mining operations. May include lime plants producing lime valued at not more than $73 thousand.

[6]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[7]For sand and gravel mining operations in manufacturing establishments includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[8]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[9]Cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[10]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]For dimension stone and sand and gravel mining operations in manufacturing establishments, the cost of minerals received for preparation and the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Excludes data for dimension stone and sand and gravel mining operations in manufacturing establishments.

[13]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 5 percent of total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1].....	22	7	.3	2.1	.3	.6	1.7	3.3	2.1	4.8	.6	.2	2.0
14	Nonmetallic minerals, exc. fuels	21	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone.....	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1422	Crushed and broken limestone	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel.....	17	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
1442	Construction sand and gravel	16	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels (sand and gravel).....	3	-	(Z)	(Z)	(Z)	(Z)	(Z)	0.4	(Z)	0.4	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Rhode Island:													
	Establishments.....number..	22	21	1	-	1	-	11	-	11	-	-	9	1
	Employees.....1,000..	.3	(D)	(D)	-	(D)	-	.2	-	.2	-	-	(D)	(D)
	Value added in mining.mil.dol..	3.3	(D)	(D)	-	(D)	-	2.5	-	2.5	-	-	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	21	21	1	-	1	-	11	-	11	-	-	9	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.2	-	.2	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	2.5	-	2.5	-	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	2	2	-	-	-	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	17	17	-	-	-	-	9	-	9	-	-	8	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	22	21	Cost of supplies, total.....million dollars..	2.1	.9
With 0 to 19 employees.....do....	15	17	Supplies used, minerals received for preparation, and purchased machinery.....do....	1.1	(NA)
With 20 to 99 employees.....do....	7	4	Cost of resales.....do....	(Z)	(NA)
With 100 or more employees.....do....	-	-	Purchased fuels consumed.....do....	.3	(NA)
All employees (average for year).....1,000..	.3	.2	Electric energy:		
			Quantity purchased.....million kw.-hrs..	3.5	(NA)
Payroll (all employees), total for year.....million dollars..	2.1	1.1	Cost.....million dollars..	.1	(NA)
			Generated less sold.....million dollars..	-	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	.6	.3
Average for the year.....1,000..	.3	.2	Value of shipments and receipts (including resales), total.....do....	4.8	2.7
March.....do....	.3	(NA)	Value of resales.....do....	(Z)	(NA)
May.....do....	.3	(NA)			
August.....do....	.3	(NA)	Value added in mining.....do....	3.3	2.0
November.....do....	.3	(NA)			
Man-hours.....millions..	.6	.4	Capital expenditures (except land and mineral rights), total.....do....	.6	.3
Wages.....million dollars..	1.7	.9	Mineral development and exploration.....do....	(Z)	(Z)
			New structures and additions.....do....	.1	.3
Supplemental labor cost not included in payroll.....do..	.2	(NA)	New machinery and equipment.....do....	.4	
			Used plant and equipment.....do....	(Z)	
Legally required expenditures, including Social Security contributions.....do..	.1	(NA)	Mineral development and exploration expenditures, total.....do....	(Z)	(NA)
Payments for voluntary programs.....do..	.1	(NA)	Capitalized.....do....	(Z)	(Z)
			Expensed.....do....	(Z)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Rhode Island, total.....	22	7	.3	2.1	.3	.6	1.7	3.3	2.1	4.8	.6	.2	2.0
	COUNTIES[2]													
	Providence county, total.....	15	5	.2	1.2	.2	.4	1.0	2.2	1.3	3.3	.3	.1	1.3
14	Nonmetallic minerals, except fuel.....	15	5	.2	1.2	.2	.4	1.0	2.2	1.3	3.3	.3	.1	1.3
144	Sand and gravel.....	11	3	.1	.8	.1	.3	.7	1.8	1.1	2.7	.2	(NA)	(NA)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such well for their own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represent the number of reports received, while county establishment counts represent the number of reports that indicated operations in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Rhode Island, total.....	22	-	-	-	1	21
1 to 4 employees.....	7	-	-	-	1	6
5 to 9 employees.....	4	-	-	-	-	4
10 to 19 employees.....	4	-	-	-	-	4
20 to 49 employees.....	7	-	-	-	-	7
Kent county, total.....	5	-	-	-	-	5
1 to 19 employees.....	3	-	-	-	-	3
20 to 99 employees.....	2	-	-	-	-	2
Newport county, total.....	1	-	-	-	-	1
1 to 19 employees.....	1	-	-	-	-	1
Providence county, total.....	15	-	-	-	-	15
1 to 19 employees.....	10	-	-	-	-	10
20 to 99 employees.....	5	-	-	-	-	5
Offshore, total.....	1	-	-	-	1	-
1 to 19 employees.....	1	-	-	-	1	-

Standard notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 431-995/1388

1967 CENSUS OF Mineral Industries



MIC67(2)-39

AREA STATISTICS

SOUTH CAROLINA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

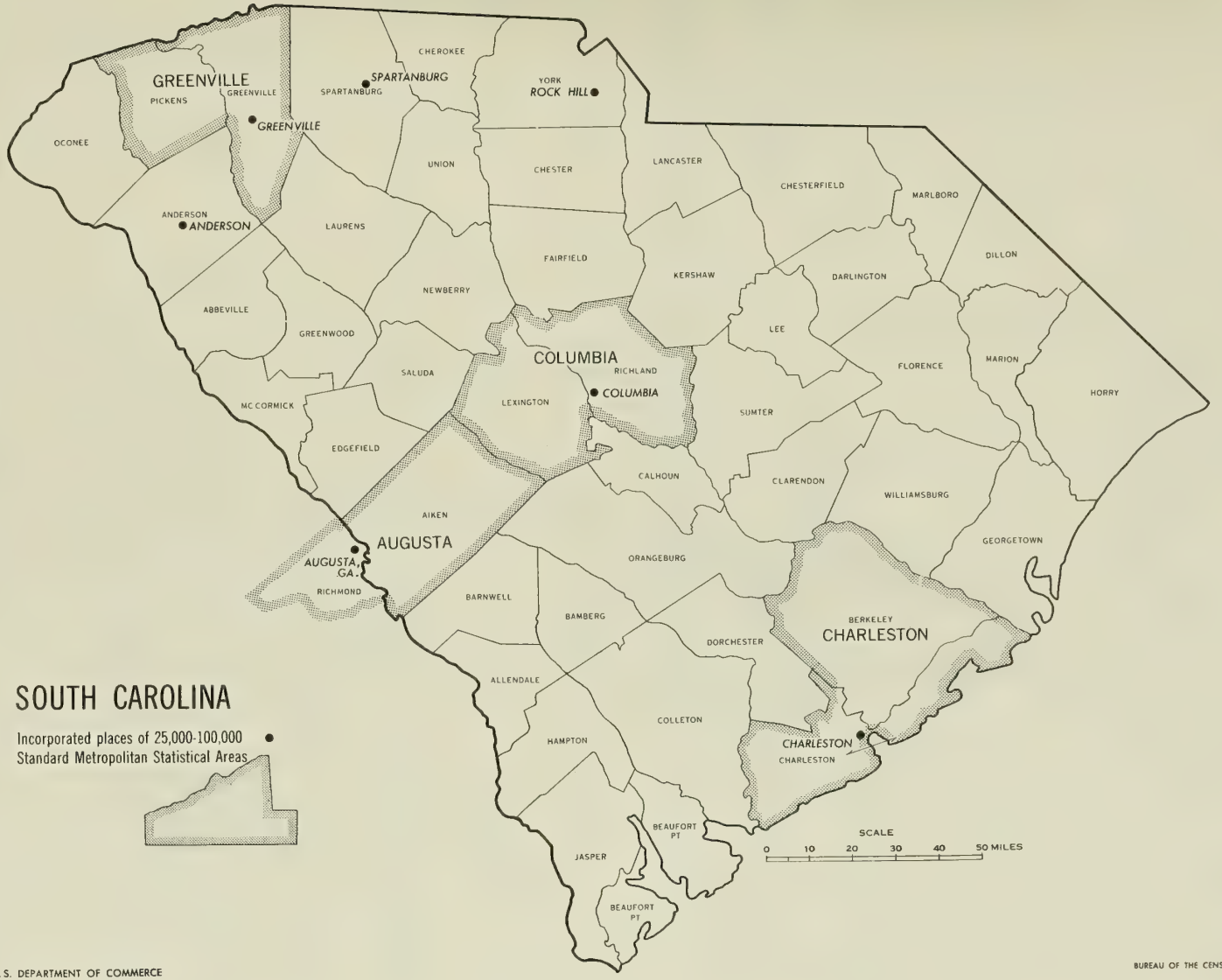
WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]59	26	1.6	8.6	1.4	3.1	6.6	21.5
1963	[1]68	25	1.7	6.8	1.5	3.3	5.6	19.0
1958	65	21	1.5	5.3	1.3	2.6	4.0	13.1
1954	56	18	1.4	4.1	1.3	3.9	3.3	10.1
Including operations in manufactures:								
1967	74	27	1.7	9.1	1.5	3.3	7.1	27.0
1963	94	26	1.8	7.3	1.6	3.5	6.1	20.5
1958	86	22	1.6	5.5	1.4	2.8	4.3	14.5
1954[2]	72	19	1.5	4.4	1.4	3.1	3.6	11.2
1939[3]	[4]46	(NA)	1.4	1.1	1.3	2.8	.8	2.4
1929[5]	33	(NA)	1.4	1.2	1.3	(NA)	.9	2.4
1919[6]	20	(NA)	1.0	.8	.9	(NA)	.7	.9
1909[6]	32	(NA)	1.0	.7	1.8	(NA)	.6	1.0
1902[7]	[4]38	(NA)	2.8	1.0	[8]2.7	(NA)	.9	1.5

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]14.6	[10]7	.7	([10])	32.6	4.1	(NA)
1963	[11]8.3	([11])	.3	1.6	26.6	2.6	.5
1958	[11]5.8	([11])	.2	1.5	18.7	1.9	.3
1954	[11]3.2	(Z)	.2	1.3	12.9	1.9	.3
Including operations in manufactures:							
1967	[12]15.8	([12])	([12])	([12])	38.4	(NA)	(NA)
1963	[11]8.6	([11])	[11].3	[13]1.6	28.4	[13]2.6	[13].5
1958	[11]6.1	([11])	[11].2	[13]1.5	20.3	[13]1.9	[13].3
1954[2]	[11]3.4	(Z)	[11].2	[13]1.3	14.2	[13]1.9	[13].3
1939[3]	1.0	(NA)	58	(NA)	3.5	(NA)	.1
1929[5]	.7	(NA)	(Z)	.2	3.1	(NA)	.2
1919[6]	.5	-	-	(NA)	1.4	(NA)	[14].3
1909[6]	.2	-	(Z)	(NA)	1.3	(NA)	(NA)
1902[7]	.3	(NA)	-	(NA)	1.8	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 4 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Excludes data for dimension stone dressing, if any, at one dimension granite quarry and, except for number of establishments, excludes data for 2 mining services operations.

[4]Represents number of mines and quarries and, for mining services industries, number of operating companies.

[5]Excludes data for common clay and shale mining operations. There were 12 such mines in 1939, with products valued at $75 thousand.

[6]Excludes data for sand and gravel mining operations and for stone quarries operated as parts of cement and lime plants, if any. In 1929, there were 6 such sand and gravel establishments, with products valued at less than $395 thousand and no such stone quarries. See also footnote 5.

[7]Excludes data for common clay and shale and sand and gravel mining operations and for one nonproducing operation. May include data for one lime plant.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, the figures represent net production and exclude this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]For crushed and broken stone, sand and gravel, clay, and, for 1963, dimension stone mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. Also, for 1963 and 1958, the cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	59	26	1.6	8.6	1.4	3.1	6.6	21.5	15.3	32.6	4.1	1.7	19.0
14	Nonmetallic minerals, except fuels	56	25	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	14	10	.6	3.0	.5	1.1	2.5	7.0	6.5	11.0	2.5	.7	9.3
1422	Crushed and broken limestone	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.6
1423	Crushed and broken granite	11	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	7.7
144	Sand and gravel	28	7	.5	2.4	.4	.9	1.8	5.8	3.2	8.2	.9	.3	3.4
1442	Construction sand and gravel	25	5	.4	2.0	.3	.7	1.5	4.8	2.3	6.5	.6	(NA)	(NA)
1443	Glass sand	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	7	6	.4	2.3	.4	.8	1.8	5.4	(D)	8.4	(D)	.5	4.8
1455	Kaolin and ball clay	5	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related minerals, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
1499	Nonmetallic minerals, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	15	1	0.1	0.5	0.1	0.2	0.5	5.5	0.3	5.8	(NA)	0.1	1.5
1459	Clay and related minerals, n.e.c.	11	-	(Z)	0.1	(Z)	0.1	0.1	3.1	0.1	3.2	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mined products produced whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	South Carolina:													
	Establishments.....number..	59	58	7	1	6	-	35	1	32	2	3	13	1
	Employees.....1,000..	1.6	(D)	.1	(D)	(D)	-	1.4	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	21.5	(D)	1.2	(D)	(D)	-	18.6	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
109	Miscellaneous metal ores:													
	Establishment.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
13	Oil and gas extraction:													
	Establishments.....number..	2	1	-	-	-	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	1	-	-	-	-	-	-	-	-	-	-	-	1
	Employees.....1,000..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	-	-	-	-	-	-	-	-	-	-	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	56	56	7	1	6	-	35	1	32	2	2	12	-
	Employees.....1,000..	(D)	(D)	.1	(D)	(D)	-	1.4	(D)	(D)	(D)	(D)	.1	-
	Value added in mining..mil.dol..	(D)	(D)	1.2	(D)	(D)	-	18.6	(D)	(D)	(D)	(D)	.4	-
141	Dimension stone:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	14	14	-	-	-	-	13	-	13	-	-	1	-
	Employees.....1,000..	.6	.6	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	7.0	7.0	-	-	-	-	(D)	-	(D)	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	28	28	1	-	1	-	14	-	12	2	2	11	-
	Employees.....1,000..	.5	.5	(D)	-	(D)	-	.4	-	(D)	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	5.8	5.8	(D)	-	(D)	-	5.1	-	(D)	(D)	(D)	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	7	7	2	-	2	-	5	1	4	-	-	-	-
	Employees.....1,000..	.4	.4	(D)	-	(D)	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining..mil.dol..	5.4	5.4	(D)	-	(D)	-	(D)	(D)	(D)	-	-	-	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	4	4	1	1	-	-	3	-	3	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	59	68	Cost of supplies, total.....million dollars..	15.3	10.1
With 0 to 19 employees.....do....	33	43	Supplies used, minerals received for preparation, and purchased machinery.....do....	12.1	(NA)
With 20 to 99 employees.....do....	24	22	Cost of resales.....do....	.3	(NA)
With 100 or more employees.....do....	2	3	Purchased fuels consumed.....do....	1.1	(NA)
All employees (average for year).....1,000..	1.6	1.7	Electric energy:		
Payroll (all employees), total for year.....million dollars..	8.6	6.8	Quantity purchased.....million kw.-hrs..	87.0	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	1.0	(NA)
Average for the year.....1,000..	1.4	1.5	Generated less sold.....million kw.-hrs..	-	(NA)
March.....do....	1.4	(NA)	Contract work.....million dollars..	.7	.3
May.....do....	1.4	(NA)	Value of shipments and receipts (including resales), total.....do....	32.6	26.6
August.....do....	1.4	(NA)	Value of resales.....do....	.4	(NA)
November.....do....	1.4	(NA)	Value added in mining.....do.	21.5	19.0
Man-hours.....millions..	3.1	3.3	Capital expenditures (except land and mineral rights), total.....do....	4.1	2.6
Wages.....million dollars..	6.6	5.6	Mineral development and exploration.....do....	.1	(Z)
Supplemental labor cost not included in payroll.....do..	.8	(NA)	New structures and additions.....do....	.2	2.6
			New machinery and equipment.....do....	3.5	
			Used plant and equipment.....do....	.4	
Legally required expenditures, including Social Security contributions.....do..	.6	(NA)	Mineral development and exploration expenditures, total.....do....	.2	(NA)
Payments for voluntary programs.....do..	.2	(NA)	Capitalized.....do....	.1	(Z)
			Expensed.....do....	.1	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	South Carolina, total.....	59	26	1.6	8.6	1.4	3.1	6.6	21.5	15.3	32.6	4.1	1.7	19.0
	COUNTIES[2]													
	Aiken county, total.....	6	5	.4	1.9	.3	.7	1.5	4.7	3.0	7.4	.3	.4	4.5
14	Nonmetallic minerals, except fuels.....	6	5	.4	1.9	.3	.7	1.5	4.7	3.0	7.4	.3	.4	4.5
145	Clay and related minerals...	5	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	4.2
	Lexington county, total.....	6	2	.2	1.1	.2	.3	.7	2.8	1.4	3.7	.5	.1	1.7
14	Nonmetallic minerals, except fuels.....	6	2	.2	1.1	.2	.3	.7	2.8	1.4	3.7	.5	.1	1.7
142	Crushed and broken stone....	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Marlboro county, total.....	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel.....	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Spartanburg county, total.....	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract service for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represent the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
South Carolina, total	[1]59	1	-	-	2	56
0 to 4 employees	13	-	-	-	2	11
5 to 9 employees	8	-	-	-	-	8
10 to 19 employees	12	-	-	-	-	12
20 to 49 employees	14	1	-	-	-	13
50 to 99 employees	10	-	-	-	-	10
100 to 249 employees	2	-	-	-	-	2
Aiken county, total	6	-	-	-	-	6
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	4	-	-	-	-	4
100 to 249 employees	1	-	-	-	-	1
Anderson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Calhoun county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Cherokee county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Chester county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Chesterfield county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Colleton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Dorchester county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Fairfield county, total	3	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	3
Florence county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Georgetown county, total	2	1	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	1	-	-	-	-
Greenville county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Greenwood county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Horry county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Jasper county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Kershaw county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Lancaster county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lexington county, total	6	-	-	-	-	6
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	2	-	-	-	-	2
Marlboro county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Pickens county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
South Carolina--Continued						
COUNTIES[2]--Continued						
Richland county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Spartanburg county, total	5	-	-	-	-	5
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	2	-	-	-	-	2
Sumter county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Williamsburg county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
York county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
Offshore, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-

Standard Notes: - Represents zero.

[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

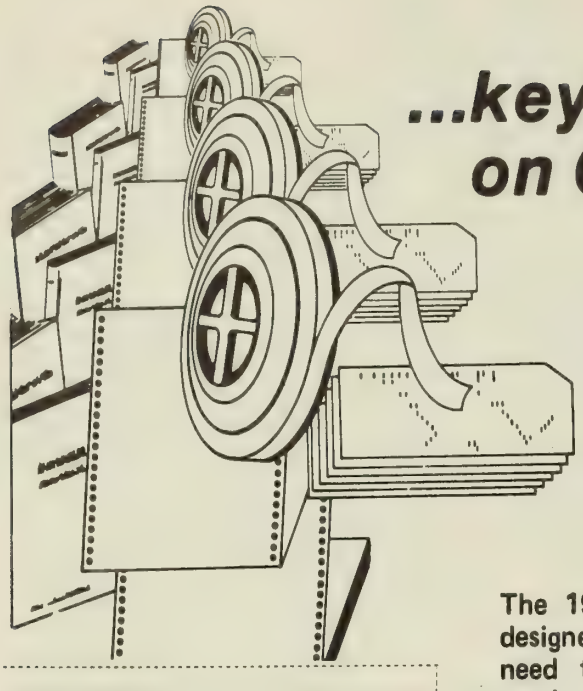
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM
WITH PAYMENT TO
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-855

1967 CENSUS OF Mineral Industries



MIC67(2)-40

AREA STATISTICS

SOUTH DAKOTA

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



SOUTH DAKOTA

Incorporated places of 25,000-100,000 ●

Standard Metropolitan Statistical Areas

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]81	7	2.2	13.9	1.9	4.4	11.3	23.6
1963	[1]131	14	2.6	13.7	2.2	4.9	11.7	25.6
1958	133	13	2.6	12.6	2.2	4.6	10.7	25.1
1954	187	23	2.9	11.7	2.5	5.7	9.9	[2]22.4
Including operations in manufactures:								
1967	85	9	(D)	(D)	(D)	(D)	(D)	(D)
1963	141	17	2.7	14.5	2.4	5.2	12.4	27.3
1958	142	16	2.7	13.3	2.4	5.0	11.3	26.3
1954[3]	191	25	3.0	12.3	2.6	5.9	10.3	23.3
1939[4]	[5]59	(NA)	2.9	5.5	2.6	6.0	4.7	[2]20.7
1929[6]	42	(NA)	1.7	3.1	1.6	(NA)	2.6	6.0
1919[7]	28	(NA)	1.9	2.8	1.9	(NA)	2.6	3.9
1909[7]	55	(NA)	3.7	3.5	3.6	(NA)	3.3	4.9
1902[8]	[5]185	(NA)	3.9	4.3	[9]3.7	(NA)	4.0	4.6

Kind of operation and year	Selected expenses				Value of shipments and receipts[10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12]10.3	([11])	.6	([11])	32.8	1.6	(NA)
1963	[12]12.3	([12])	2.0	1.0	37.9	3.0	.5
1958	[12]10.0	([12])	.8	1.5	34.9	2.5	.5
1954	7.5	.6	2.3	2.1	31.3	3.5	.8
Including operations in manufactures:							
1967	(D)	(D)	(D)	(D)	(D)	(D)	(NA)
1963	[12] [13]12.8	([12])	[13]2.0	[14]1.0	40.2	[14]3.0	[14].5
1958	[12] [13]10.5	([12])	[13].8	[14]1.6	36.5	[14]2.6	[14].5
1954[3]	[13] 7.8	.6	[13]2.3	[14]2.1	32.4	[14]3.6	[14].8
1939[4]	2.2	(NA)	(Z)	(NA)	22.9	(NA)	.6
1929[6]	1.7	(NA)	(Z)	(Z)	7.6	(NA)	.4
1919[7]	1.4	-	(Z)	(NA)	5.3	(NA)	[15].4
1909[7]	1.5	.1	(Z)	(NA)	6.4	(NA)	(NA)
1902[8]	2.2	(NA)	(Z)	(NA)	6.8	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 37 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing granite and sandstone at such operations was $197 thousand; this value has been included in the value of shipments and value added in mining.

[5]Represents number of mines and quarries and, for crude petroleum and natural gas and mining services industries, number of operation companies.

[6]Excludes data for operations in the crude petroleum and natural gas extraction industries and for common clay and shale operations, if any. Includes data for one establishment in North Dakota.

[7]Excludes data for sand, gravel, common clay, and shale mining operations, if any.

[8]Includes data for lime plants producing lime valued at $21 thousand.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years represents net production and excludes this duplication. For 1954, excludes data for the Uranium-Radium-Vanadium Ores Industry.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]Figures for the cost of minerals received for preparation are included with those for the cost of supplies, purchases for resale, and purchased fuels and electricity.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, and for dimension stone mining operations in manufactures for 1958, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, clay, and for 1963 dimension stone mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to less than one percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations.....	81	7	2.2	13.9	1.9	4.4	11.3	23.6	10.9	32.8	1.6	2.6	25.6
10	Metal mining.....	8	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	(2)
104	Gold and silver ores.....	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1042	Lode gold.....	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	16.4
14	Nonmetallic minerals, except fuels.....	52	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone.....	8	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.....	4	3	.1	.6	.1	.2	.5	1.4	.9	2.0	.3	(NA)	(NA)
144	Sand and gravel.....	36	1	.2	1.0	.1	.3	.8	2.0	1.7	3.0	.7	.3	2.5
1442	Construction sand and gravel	35	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals.....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	3.0
1452	Bentonite.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

[2] Figures for metal mining are included with those for lignite mining and nonmetallic minerals mining.

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	South Dakota, total.....	4	2	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.7

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	South Dakota:													
	Establishments.....number..	81	76	15	4	8	3	23	1	19	3	2	36	5
	Employees.....1,000..	2.2	(D)	.1	(D)	(Z)	(D)	2.1	(D)	(D)	(D)	(D)	.1	(D)
	Value added in mining.mil.dol..	23.6	(D)	.8	(D)	.4	(D)	22.5	(D)	(D)	(D)	(D)	.6	(D)
10	Metal mining:													
	Establishments.....number..	8	8	5	4	1	-	1	1	-	-	2	-	-
	Employees.....1,000..	(D)	(D)	(Z)	(D)	(D)	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	.2	(D)	(D)	-	(D)	(D)	-	-	(D)	-	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	-	-	-	-	1	1	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	-	-
109	Miscellaneous metal ores:													
	Establishments.....number..	7	7	5	4	1	-	-	-	-	-	2	-	-
	Employees.....1,000..	(D)	(D)	(Z)	(D)	(D)	-	-	-	-	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	.2	(D)	(D)	-	-	-	-	-	(D)	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	18	13	3	-	-	3	-	-	-	-	-	10	5
	Employees.....1,000..	(D)	(Z)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	.6	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	13	8	3	-	-	3	-	-	-	-	-	5	5
	Employees.....1,000..	(D)	(Z)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	.4	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field servsces:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	52	52	4	-	4	-	22	-	19	3	-	26	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	(D)	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	.3	-	.3	-	(D)	-	(D)	(D)	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	2	2	2	-	2	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	8	8	-	-	-	-	7	-	7	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	.1	-	.1	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	2.0	-	2.0	-	-	(D)	-
144	Sand and gravel:													
	Establishments.....number..	36	36	-	-	-	-	12	-	9	3	-	23	-
	Employees.....1,000..	.2	.2	-	-	-	-	.2	-	(D)	(D)	-	(Z)	-
	Value added in mining.mil.dol..	2.0	2.0	-	-	-	-	1.7	-	(D)	(D)	-	.3	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	South Dakota--Continued													
	Nonmetallic minerals, except fuels--Continued													
145	Clay and related minerals:													
	Establishments.....number..	4	4	2	-	2	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
148	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	81	131	Cost of supplies, total.....million dollars..	10.9	15.3
With 0 to 19 employees.....do....	74	117	Supplies used, minerals received for preparation, and purchased machinery.....do....	8.4	(NA)
With 20 to 99 employees.....do....	6	13	Cost of resales.....do....	.1	
With 100 or more employees.....do....	1	1	Purchased fuels consumed.....do....	.7	(NA)
All employees (average for year).....1,000..	2.2	2.6	Electric energy:		
Payroll (all employees), total for year.....million dollars..	13.9	13.7	Quantity purchased.....million kw.-hrs..	98.2	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	1.1	(NA)
Average for the year.....1,000..	1.9	2.2	Generated less sold.....million kw.-hrs..	30.6	(NA)
March.....do....	1.8	(NA)	Contract work.....million dollars..	.6	2.0
May.....do....	1.9	(NA)	Value of shipments and receipts (including resales), total.....do....	32.8	37.9
August.....do....	2.0	(NA)	Value of resales.....do....	.1	(NA)
November.....do....	1.9	(NA)	Value added in mining.....do....	23.6	25.6
Man-hours.....millions..	4.4	4.9	Capital expenditures (except land and mineral rights), total.....do....	1.6	3.0
Wages.....million dollars..	11.3	11.7	Mineral development and exploration.....do....	.2	1.2
Supplemental labor cost not included in payroll.....do..	1.4	(NA)	New structures and additions.....do....	.2	1.7
			New machinery and equipment.....do....	1.1	
			Used plant and equipment.....do....	.1	
Legally required expenditures, including Social Security contributions.....do..	.9	(NA)	Mineral development and exploration expenditures, total.....do....	1.0	(NA)
Payments for voluntary programs.....do..	.5	(NA)	Capitalized.....do....	.2	1.2
			Expensed.....do....	.8	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	South Dakota, total.....	81	7	2.2	13.9	1.9	4.4	11.3	23.6	10.9	32.8	1.6	2.6	25.6
	COUNTIES[2]													
	Lawrence county, total.....	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	16.5
10	Metal mining.....	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores.....	1	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Pennington county, total.....	8	2	.2	.9	.1	.3	.7	1.4	1.1	2.2	.3	.2	1.2
14	Nonmetallic minerals, except fuels.....	8	2	.2	.9	.1	.3	.7	1.4	1.1	2.2	.3	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
South Dakota, total	81	8	-	3	18	52
0 to 4 employees	55	5	-	3	16	31
5 to 9 employees	6	1	-	-	1	4
10 to 19 employees	13	1	-	-	1	11
20 to 49 employees	5	-	-	-	-	5
50 to 99 employees	1	-	-	-	-	1
1,000 to 2,499 employees	1	1	-	-	-	-
Beadle county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Bennett county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Brookings county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Brown county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Butte county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Charles Mix county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Clay county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Codington county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Corson county, total	1	-	-	-	1	-
o to 19 employees	1	-	-	-	1	-
Custer county, total	4	1	-	-	1	2
0 to 19 employees	3	1	-	-	1	1
20 to 99 employees	1	-	-	-	-	1
Dewey county, total	3	-	-	2	1	-
0 to 19 employees	3	-	-	2	1	-
Douglas county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Fall river county, total	9	6	-	-	2	1
0 to 19 employees	9	6	-	-	2	1
Grant county, total	3	-	-	-	-	3
o to 19 employees	3	-	-	-	-	3
Gregory county, total	1	-	-	-	-	1
o to 19 employees	1	-	-	-	-	1
Haakon county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Hamlin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hanson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Harding county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Hughes county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Jones county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Lake county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lawrence county, total	2	1	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
250 employees and over	1	1	-	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
South Dakota--Continued						
Lincoln county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lyman county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Mellette county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Minnehaha county, total	8	-	-	-	2	6
0 to 19 employees	7	-	-	-	2	5
20 to 99 employees	1	-	-	-	-	1
Moody county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Pennington county, total	8	-	-	-	-	-
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	2	-	-	-	-	2
Perkins county, total	3	-	-	1	1	1
0 to 19 employees	3	-	-	1	1	1
Roberts county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Stanley county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Sully county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Tripp county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Walworth county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Washabaugh county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Yankton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Ziebach county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

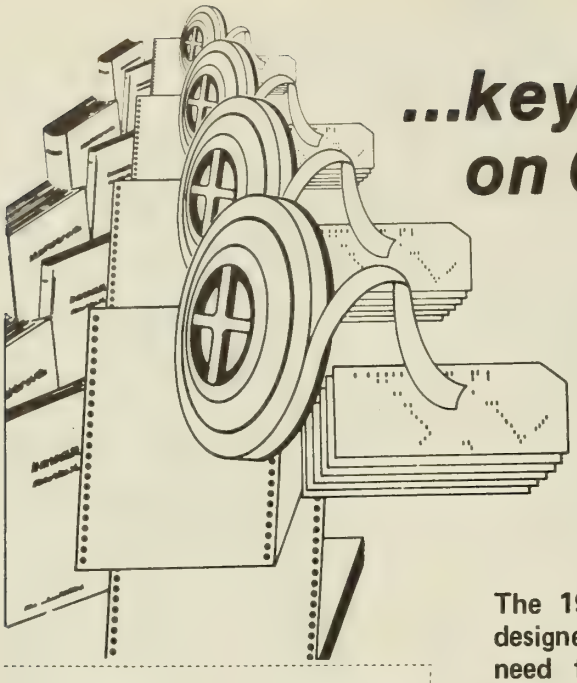
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM

WITH PAYMENT TO

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-854

1967 CENSUS OF Mineral Industries



MIC67(2)-41

AREA STATISTICS

TENNESSEE

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

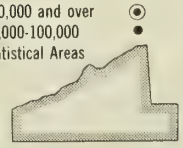
—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

TENNESSEE

Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas





U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]352	99	6.9	39.1	6.0	12.4	31.6	116.2
1963	[1]503	87	6.9	32.4	6.0	12.3	27.3	90.1
1958	533	94	8.7	32.6	7.5	13.8	26.8	62.0
1954	665	105	9.6	30.2	8.8	16.3	26.4	61.1
Including operations in manufactures:								
1967	364	102	7.2	40.5	6.2	12.9	32.9	121.4
1963	528	94	7.5	34.7	6.6	13.4	29.3	94.7
1958	562	106	9.7	35.6	8.4	15.6	29.4	69.5
1954[2]	692	112	10.2	32.0	9.4	17.4	28.0	65.2
1939[3]	[4]266	(NA)	12.5	11.9	11.7	19.6	10.5	18.4
1929[5]	163	(NA)	12.9	12.9	12.0	(NA)	11.0	19.6
1919[6]	203	(NA)	15.4	14.6	14.5	(NA)	13.0	19.0
1909[6]	246	(NA)	17.3	8.4	16.4	(NA)	7.4	10.3
1902[7]	[4]256	(NA)	11.7	5.5	[8]10.9	(NA)	4.9	8.5

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]45.8	([10])	8.3	([10])	151.3	19.0	(NA)
1963	29.5	4.6	7.1	8.5	126.7	13.2	2.6
1958	[11]37.6	([11])	3.2	5.9	100.2	8.5	2.0
1954	18.5	1.0	3.7	5.5	82.8	7.0	1.1
Including operations in manufactures:							
1967	[12](D)	([12])	([12])	([12])	157.2	(NA)	(NA)
1963	[13]31.0	5.1	[13]7.1	[14]8.6	133.2	[14]13.3	[14]2.6
1958	[11] [13]39.2	([11])	[13]3.2	[14]6.0	109.2	[14]8.7	[14]2.0
1954[2]	[13]19.6	1.2	[13]3.7	[14]5.5	88.3	[14]7.1	[14]1.1
1939[3]	4.2	(NA)	.1	(NA)	22.7	(NA)	1.7
1929[5]	4.5	(NA)	.1	1.1	24.2	(NA)	[15]1.7
1919[6]	4.2	-	.2	(NA)	23.3	(NA)	2.3
1909[6]	2.3	(Z)	.1	(NA)	12.7	(NA)	(NA)
1902[7]	.9	(NA)	.2	(NA)	9.5	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 134 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[3]Except, in part, for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing marble and sandstone at such operations was $551 thousand; this value has been included in the value of shipments and value added in mining. Except in number of establishments, excludes data for one contract service operation and one nonproducing operation.

[4]Represents number of mines and quarries and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for common clay and shale operations, and for oil and gas extraction operations, if any. For 1939, there were 16 common clay and shale mines, with products valued at $137 thousand, and 9 oil and gas extraction operations, with products valued at $45 thousand.

[6]Excludes data for sand, gravel, common clay, and shale operations, and quarries operated as parts of cement and lime establishments. In 1929, there were 20 sand and gravel establishments, with products valued at $2,137 thousand; 5 stone quarries operated as parts of cement plants, with products valued at $467 thousand; and one stone quarry operated as part of a lime plant. For 1919, excludes data for one nonproducing establishment.

[7]Excludes data for sand, gravel, common clay, and shale operations. Includes data for lime plants producing lime valued at $236 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Figures for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electricity.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	352	99	6.9	39.1	6.0	12.4	31.6	116.2	54.1	151.3	19.0	6.9	90.1
10	Metal mining	13	11	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	10.0
1021	Copper ores	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	9	9	1.3	7.2	1.1	2.1	5.3	13.7	5.9	16.9	2.8	.9	9.6
1033	Zinc ores	9	9	1.3	7.2	1.1	2.1	5.3	13.7	5.9	16.9	2.8	(D)	(D)
12	Bituminous coal and lignite mining	138	31	1.7	9.7	1.6	2.9	8.7	24.3	15.9	32.0	8.2	1.8	20.3
121	Bituminous coal and lignite mining	138	31	1.7	9.7	1.6	2.9	8.7	24.3	15.9	32.0	8.2	1.8	20.3
1211	Bituminous coal	137	31	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.8	20.1
14	Nonmetallic minerals, except fuels	182	57	3.3	18.4	2.8	6.2	14.5	61.5	28.4	83.0	6.9	4.1	59.7
141	Dimension stone	15	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	2.5
1419	Dimension stone, n.e.c.	12	3	.1	.4	.1	.2	.4	.6	.1	.7	(Z)	(D)	(D)
142	Crushed and broken stone	79	32	1.5	8.3	1.3	3.1	6.7	25.5	13.2	35.3	3.4	1.5	21.6
1422	Crushed and broken limestone	75	31	1.5	8.0	1.3	3.1	6.5	25.2	(D)	34.8	(D)	(D)	(D)
144	Sand and gravel	55	9	.6	3.4	.5	1.1	2.5	7.8	3.7	10.2	1.3	.7	7.6
1442	Construction sand and gravel	46	7	.5	2.8	.4	.9	2.0	6.0	2.6	7.6	1.1	(NA)	(NA)
1445	Industrial sand, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	11	7	.3	1.9	.3	.6	1.4	5.1	2.4	6.9	.7	.3	4.3
1455	Kaolin and ball clay	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1459	Clay and related minerals, n.e.c.	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer minerals	19	6	.6	4.0	.5	1.1	3.4	22.0	8.8	29.3	1.5	(D)	(D)
1475	Phosphate rock	16	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	12	3	0.3	1.4	0.2	0.5	1.3	5.2	(D)	5.9	(D)	0.7	4.6

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Tennessee:													
	Establishments.....number..	352	345	130	98	28	4	163	30	124	9	10	42	7
	Employees.....1,000..	6.9	6.9	1.2	.8	.3	.1	5.4	2.6	2.6	.2	(D)	(D)	(Z)
	Value added in mining.mil.dol..	116.2	116.2	15.7	9.4	5.5	.8	97.0	40.1	54.8	2.1	(D)	(D)	.1
10	Metal mining:													
	Establishments.....number..	13	12	-	-	-	-	9	9	-	-	-	3	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	1.9	1.9	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	28.8	28.8	-	-	-	(D)	(D)
1021	Copper ores:													
	Establishments.....number..	2	2	-	-	-	-	1	1	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	-	-	-	(D)	-
103	Lead and zinc ores:													
	Establishments.....number..	9	8	-	-	-	-	8	8	-	-	-	-	1
	Employees.....1,000..	1.3	(D)	-	-	-	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining.mil.dol..	13.7	(D)	-	-	-	-	(D)	(D)	-	-	-	-	(D)
1081	Metal mining services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	138	138	106	98	5	3	26	18	8	-	4	2	-
	Employees.....1,000..	1.7	1.7	.9	(D)	(D)	(D)	.7	(D)	(D)	-	(D)	(D)	-
	Value added in mining.mil.dol..	24.3	24.3	12.2	(D)	(D)	(D)	11.8	(D)	(D)	-	(D)	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	138	138	106	98	5	3	26	18	8	-	4	2	-
	Employees.....1,000..	1.7	1.7	.9	(D)	(D)	(D)	.7	(D)	(D)	-	(D)	(D)	-
	Value added in mining.mil.dol..	24.3	24.3	12.2	(D)	(D)	(D)	11.8	(D)	(D)	-	(D)	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	19	17	-	-	-	-	-	-	-	-	-	17	2
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	14	12	-	-	-	-	-	-	-	-	-	12	2
	Employees.....1,000..	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	.6	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	182	178	24	-	23	1	128	3	116	9	6	20	4
	Employees.....1,000..	3.3	(D)	.3	-	(D)	(D)	2.8	(D)	(D)	.2	(D)	.1	(D)
	Value added in mining.mil.dol..	61.5	(D)	3.5	-	(D)	(D)	56.4	(D)	(D)	2.1	(D)	1.2	(D)
141	Dimension stone:													
	Establishments.....number..	15	15	10	-	10	-	4	-	4	-	-	1	-
	Employees.....1,000..	(D)	(D)	.1	-	.1	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	.4	-	.4	-	(D)	-	(D)	-	-	(D)	-
142	Crushed and broken stone:													
	Establishments.....number..	79	78	-	-	-	-	74	3	70	1	3	1	1
	Employees.....1,000..	1.5	(D)	-	-	-	-	1.5	(D)	1.3	(D)	(D)	(D)	(D)
	Value added in mining.mil.dol..	25.5	(D)	-	-	-	-	25.2	(D)	22.7	(D)	(D)	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	55	52	3	-	2	1	32	-	24	8	1	16	3
	Employees.....1,000..	.6	(D)	(D)	-	(D)	(D)	.5	-	(D)	(D)	(D)	.1	(D)
	Value added in mining.mil.dol..	7.8	(D)	(D)	-	(D)	(D)	6.5	-	(D)	(D)	(D)	.8	(D)

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Tennessee--Continued													
145	Clay and related minerals:													
	Establishments.....number..	11	11	2	-	2	-	9	-	9	-	-	-	-
	Employees.....1,000..	.3	.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	5.1	5.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	19	19	9	-	9	-	8	-	8	-	2	-	-
	Employees.....1,000..	.6	.6	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining.mil.dol..	22.0	22.0	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	352	503	Cost of supplies, total.....million dollars..	54.1	49.7
With 0 to 19 employees.....do....	253	416	Supplies used, minerals received for preparation, and purchased machinery.....do....	38.4	(NA)
With 20 to 99 employees.....do....	89	78	Cost of resales.....do....	.8	(NA)
With 100 or more employees.....do....	10	9	Purchased fuels consumed.....do....	3.9	(NA)
All employees (average for year).....1,000..	6.9	6.9	Electric energy:		
			Quantity purchased.....million kw.-hrs..	423.2	(NA)
Payroll (all employees), total for year.....million dollars..	39.1	32.4	Cost.....million dollars..	2.8	(NA)
			Generated less sold.....million kw.-hrs..	1.6	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	8.3	7.1
Average for the year.....1,000..	6.0	6.0	Value of shipments and receipts (including resales), total.....do....	151.3	126.7
March.....do....	6.0	(NA)	Value of resales.....do....	.9	(NA)
May.....do....	6.0	(NA)			
August.....do....	6.1	(NA)	Value added in mining.....do....	116.2	90.1
November.....do....	5.9	(NA)			
Man-hours.....millions..	12.4	12.3	Capital expenditures (except land and mineral rights), total.....do....	19.0	13.2
Wages.....million dollars..	31.6	27.3	Mineral development and exploration.....do....	2.1	1.4
			New structures and additions.....do....	2.9	11.8
Supplemental labor cost not included in payroll.....do..	3.7	(NA)	New machinery and equipment.....do....	12.3	
			Used plant and equipment.....do....	1.6	
			Mineral development and exploration expenditures, total.....do....	3.5	(NA)
Legally required expenditures, including Social Security contributions.....do..	2.5	(NA)	Capitalized.....do....	2.1	1.4
Payments for voluntary programs.....do..	1.3	(NA)	Expensed.....do....	1.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Tennessee, total	352	99	6.9	39.1	6.0	12.4	31.6	116.2	54.1	151.3	19.0	6.9	90.1
	COUNTIES[2]													
	Anderson county, total	16	6	.5	2.9	.5	.9	2.7	6.5	2.0	8.0	.5	.5	5.9
12	Bituminous coal and lignite mining	14	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Bituminous coal and lignite mining	14	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Benton county, total	9	2	.1	.7	.1	.2	.5	1.4	1.3	2.3	.3	(D)	(D)
14	Nonmetallic minerals, except fuels	9	2	.1	.7	.1	.2	.5	1.4	1.3	2.3	.3	(D)	(D)
	Campbell county, total	25	4	.2	1.0	.2	.3	.9	2.5	1.6	3.8	.3	.5	7.3
12	Bituminous coal and lignite mining	23	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	6.9
121	Bituminous coal and lignite mining	23	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Claiborne county, total	12	4	.2	1.2	.2	.4	1.1	3.9	5.1	3.3	5.7	.1	1.3
12	Bituminous coal and lignite mining	11	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
121	Bituminous coal and lignite mining	11	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.3
	Cumberland county, total	12	3	.2	.6	.2	.3	.5	1.0	.7	1.4	.3	.1	.6
14	Nonmetallic minerals, except fuels	11	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Davidson county, total	9	5	.2	1.2	.2	.5	1.0	5.7	2.7	7.6	.8	.3	4.2
14	Nonmetallic minerals, except fuels	8	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	7	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Grundy county, total	11	2	.1	.7	.1	.2	.7	1.7	2.1	3.7	.2	.1	1.3
12	Bituminous coal and lignite mining	11	2	.1	.7	.1	.2	.7	1.7	2.1	3.7	.2	.1	1.3
121	Bituminous coal and lignite mining	11	2	.1	.7	.1	.2	.7	1.7	2.1	3.7	.2	.1	1.3
	Hamilton county, total	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.2
	Hancock county, total	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Henry county, total	5	3	.2	1.0	.2	.3	.7	2.7	.9	3.1	.4	.2	2.0
14	Nonmetallic minerals, except fuels	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.0
145	Clay and related minerals	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.0
	Jefferson county, total	12	7	.8	4.6	.7	1.3	3.4	11.3	4.2	14.3	1.2	.6	7.1
10	Metal mining	8	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	7.1
103	Lead and zinc ores	6	6	.7	4.2	.6	1.2	3.1	10.5	3.9	13.3	1.1	.6	6.5
	Knox county, total	26	11	.8	4.8	.7	1.3	3.6	7.7	4.3	10.1	2.0	.6	5.9
10	Metal mining	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	11	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	11	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	11	3	.2	1.2	.2	.4	1.0	2.8	1.8	4.2	.4	(D)	(D)
142	Crushed and broken stone	6	2	.1	.7	.1	.3	.6	2.1	1.4	3.2	.2	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Tennessee--Continued													
	COUNTIES[2]--Continued													
	Marion county, total	19	5	.2	1.3	.2	.4	1.2	3.4	2.4	5.3	.5	(Z)	.4
12	Bituminous coal and lignite mining	17	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	17	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Maury county, total	15	6	.5	4.0	.5	1.0	3.3	21.9	8.4	28.8	1.5	.7	14.7
14	Nonmetallic minerals, except fuels	15	6	.5	4.0	.5	1.0	3.3	21.9	8.4	28.8	1.5	.7	14.7
147	Chemical and fertilizer minerals	12	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Polk county, total	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Scott county, total	11	3	.1	.5	.1	.2	.4	1.2	.6	1.6	.3	.1	1.4
12	Bituminous coal and lignite mining	11	3	.1	.5	.1	.2	.4	1.2	.6	1.6	.3	.1	1.4
121	Bituminous coal and lignite mining	11	3	.1	.5	.1	.2	.4	1.2	.6	1.6	.3	.1	1.4
	Shelby county, total	25	4	.2	1.4	.2	.4	1.0	2.9	1.3	3.0	1.1	.2	1.6
14	Nonmetallic minerals, except fuels	15	4	.2	1.4	.2	.4	.9	2.5	.9	3.0	.3	.2	1.5
144	Sand and gravel	15	4	.2	1.4	.2	.4	.9	2.5	.9	3.0	.3	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Tennessee, total	352	13	-	138	19	182
0 to 4 employees	125	-	-	71	18	36
5 to 9 employees	49	1	-	18	1	29
10 to 19 employees	79	1	-	18	-	60
20 to 49 employees	77	4	-	25	-	48
50 to 99 employees	12	-	-	4	-	8
100 to 249 employees	8	5	-	2	-	1
250 to 499 employees	1	1	-	-	-	-
500 to 999 employees	1	1	-	-	-	-
Anderson county, total	16	-	-	14	1	1
0 to 19 employees	10	-	-	9	1	-
20 to 99 employees	4	-	-	3	-	1
100 to 249 employees	2	-	-	2	-	-
Bedford county, total	3	-	-	1	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	1	-	1
Benton county, total	9	-	-	-	-	9
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	2	-	-	-	-	2
Blount county, total	4	-	-	-	-	4
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	3	-	-	-	-	3
Bradley county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Campbell county, total	25	-	-	23	-	2
0 to 19 employees	21	-	-	20	-	1
20 to 99 employees	4	-	-	3	-	1
Carroll county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Carter county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Claiborne county, total	12	-	-	11	-	1
0 to 19 employees	8	-	-	7	-	1
20 to 99 employees	4	-	-	4	-	-
Clay county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Coffee county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Cumberland county, total	12	-	-	1	-	11
0 to 19 employees	9	-	-	1	-	8
20 to 99 employees	3	-	-	-	-	3
Davidson county, total	9	-	-	-	1	8
0 to 19 employees	4	-	-	-	1	3
20 to 99 employees	5	-	-	-	-	5
Decatur county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Dickson county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Fentress county, total	4	-	-	2	1	1
0 to 19 employees	4	-	-	2	1	1
Franklin county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
Giles county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Tennessee--Continued						
Grainger county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Greene county, total	4	-	-	1	-	3
0 to 19 employees	3	-	-	1	-	2
20 to 99 employees	1	-	-	-	-	1
Grundy county, total	11	-	-	11	-	-
0 to 19 employees	9	-	-	9	-	-
20 to 99 employees	2	-	-	2	-	-
Hamilton county, total	8	-	-	3	-	5
0 to 19 employees	6	-	-	3	-	3
20 to 99 employees	2	-	-	-	-	2
Hancock county, total	1	1	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Hardeman county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Hardin county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Hawkins county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Henderson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Henry county, total	5	-	-	-	1	4
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	3	-	-	-	-	3
Hickman county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Humphreys county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Jefferson county, total	12	8	-	1	-	3
0 to 19 employees	5	1	-	1	-	3
20 to 99 employees	3	3	-	-	-	-
100 to 249 employees	4	4	-	-	-	-
Johnson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Knox county, total	26	3	-	11	1	11
0 to 19 employees	15	1	-	5	1	8
20 to 99 employees	10	1	-	6	-	3
250 employees and over	1	1	-	-	-	-
Loudon county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
McMinn county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
McNairy county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Macon county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Marion county, total	19	-	-	17	-	2
0 to 19 employees	14	-	-	12	-	2
20 to 99 employees	5	-	-	5	-	-
Marshall county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Tennessee--Continued						
Maury county, total	15	-	-	-	-	15
0 to 19 employees	9	-	-	-	-	9
20 to 99 employees	5	-	-	-	-	5
100 to 249 employees	1	-	-	-	-	1
Meigs county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Monroe county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Montgomery county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Morgan county, total	6	-	-	6	-	-
0 to 19 employees	6	-	-	6	-	-
Obion county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Overton county, total	5	-	-	4	-	1
0 to 19 employees	5	-	-	4	-	1
Perry county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Polk county, total	2	1	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
250 employees and over	1	1	-	-	-	-
Putnam county, total	6	-	-	2	-	4
0 to 19 employees	5	-	-	1	-	4
20 to 99 employees	1	-	-	1	-	-
Rhea county, total	3	-	-	1	-	2
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	-	-	1
Roane county, total	13	-	-	11	-	2
0 to 19 employees	13	-	-	11	-	2
Robertson county, total	3	-	-	-	1	2
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	2	-	-	-	-	2
Rutherford county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Scott county, total	11	-	-	11	-	-
0 to 19 employees	8	-	-	8	-	-
20 to 99 employees	3	-	-	3	-	-
Sequatchie county, total	6	-	-	5	-	1
0 to 19 employees	5	-	-	4	-	1
20 to 99 employees	1	-	-	1	-	-
Sevier county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Shelby county, total	25	-	-	1	9	15
0 to 19 employees	21	-	-	1	9	11
20 to 99 employees	4	-	-	-	-	4
Smith county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Sullivan county, total	2	-	-	1	-	1
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	-	-	1
Sumner county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Tennessee--Continued						
Unicoi county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Warren county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Washington county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Wayne county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Weakley county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
White county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Williamson county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Wilson county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

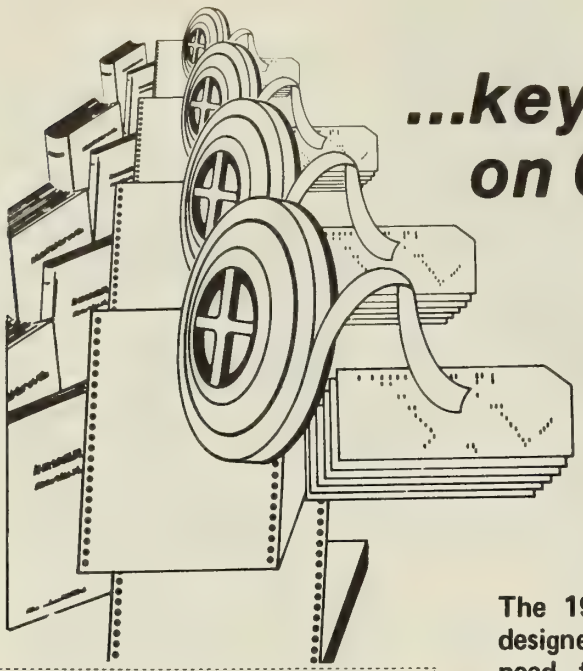
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM

WITH PAYMENT TO

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

or any

U.S. Department of Commerce field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆ U.S. GOVERNMENT PRINTING OFFICE : 1971 O—412-853

1967 CENSUS OF Mineral Industries



MIC67(2)-42

AREA STATISTICS

TEXAS

Issued March 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	8
5	General Statistics by County and Industry Groups: 1967 and 1963	9
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	20
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

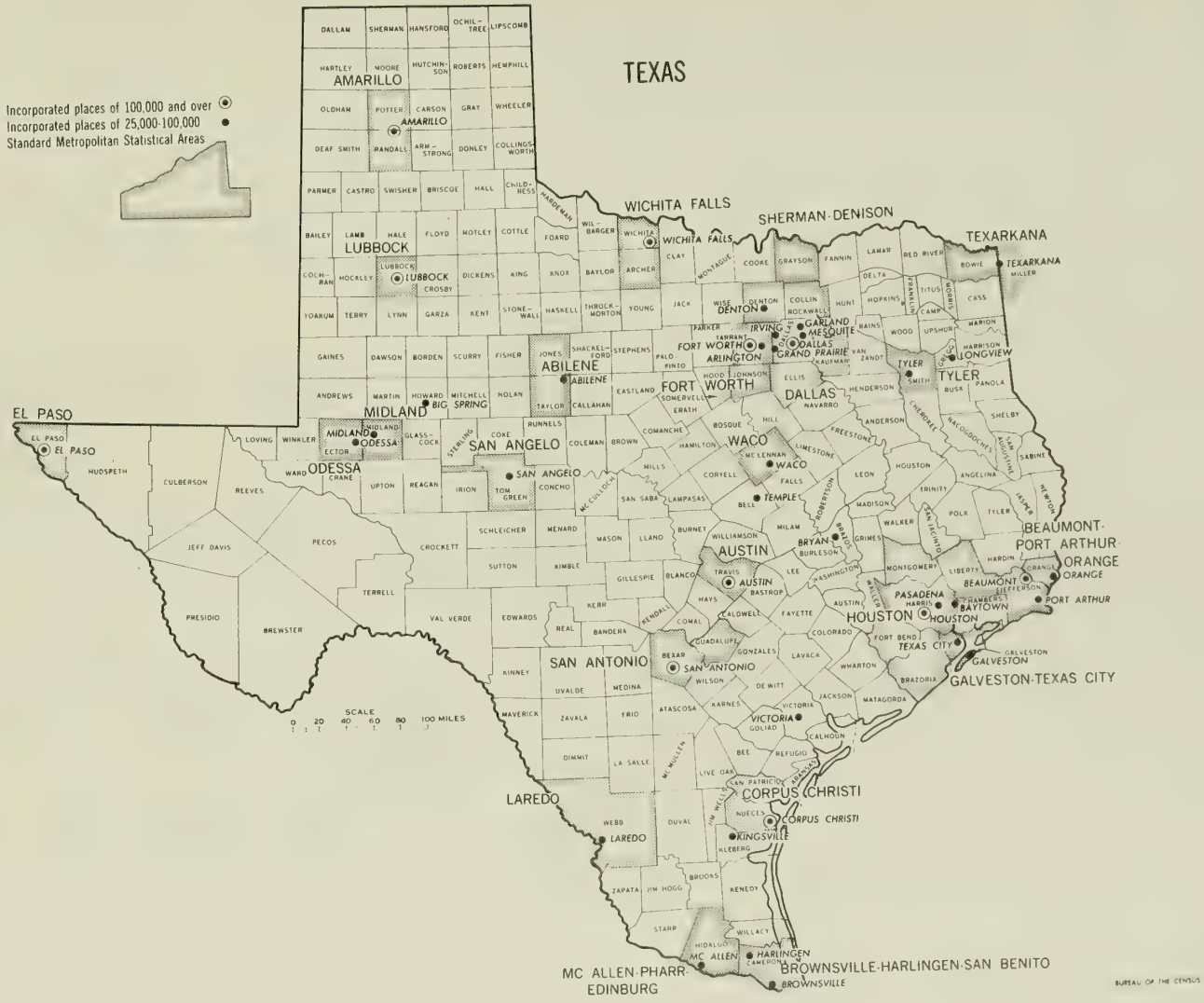

TEXAS
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
SCALE
0 20 40 60 80 100 MILES
AMARILLO
LUBBOCK
WICHITA FALLS
SHERMAN-DENISON
TEXARKANA
ABILENE
FORT WORTH
DALLAS
TYLER
LONGVIEW
MIDLAND
ODESSA
BIG SPRING
SAN ANGELO
WACO
TEMPLE
AUSTIN
BEAUMONT-PORT ARTHUR-ORANGE
HOUSTON
GALVESTON-TEXAS CITY
EL PASO
SAN ANTONIO
VICTORIA
CORPUS CHRISTI
LAREDO
MC ALLEN-PHARR-EDINBURG
BROWNSVILLE-HARLINGEN-SAN BENITO
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1] 6,123	1,112	95.5	716.8	63.0	131.0	396.4	4,990.9
1963	[1] [2] 7,732	[2] 1,032	113.0	734.5	75.7	161.2	428.4	4,245.7
1958	5,851	1,149	136.1	747.3	89.7	189.2	424.0	3,844.5
1954	5,264	1,162	139.8	666.0	100.5	221.2	423.2	3,533.1
Including operations in manufactures:								
1967	6,295	1,124	96.3	720.6	63.8	132.5	399.9	5,008.7
1963	[2] 7,847	[2] 1,048	114.0	738.8	76.7	163.2	432.5	4,265.0
1958	5,949	1,161	137.0	750.6	90.5	190.9	427.2	3,865.3
1954[3]	5,345	1,181	141.0	669.1	101.6	223.5	426.4	3,544.9
1939[4]	[5] 3,685	(NA)	67.7	117.6	53.3	96.3	78.2	521.2
1919[6]	688	(NA)	22.7	36.6	18.3	(NA)	29.9	80.5
1909[6]	260	(NA)	6.9	4.6	6.5	(NA)	4.1	8.4
1902[7]	[5] 385	(NA)	5.1	3.0	[8] 3.9	(NA)	2.3	4.2
Excluding oil and gas extraction industries:								
1967	415	115	7.6	48.2	6.2	14.1	34.6	203.3
1963	484	102	7.9	39.7	6.4	13.8	29.3	131.5
1958	408	109	8.1	37.5	6.9	15.4	29.0	125.8
1954[3]	359	196	8.0	31.0	7.2	16.0	26.0	129.8
1939[9]	[5] 201	(NA)	5.5	6.5	4.9	9.8	5.0	29.9
1929[10]	133	(NA)	7.3	9.8	6.5	(NA)	7.6	38.9
1919[6]	71	(NA)	5.0	6.0	4.6	(NA)	5.0	13.0
1909[11]	78	(NA)	5.3	2.9	5.0	(NA)	2.6	3.7
1902[12]	[5] 98	(NA)	3.3	1.8	[8] 3.1	(NA)	1.6	2.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[15] (million dollars)	Capital expenditures[14] (million dollars)	Energy used[14] (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy[13] (million dollars)	Minerals received for preparation (million dollars)	Contract work[13] (million dollars)	Purchased machinery installed[14] (million dollars)			
Mineral industries only:							
1967	1,928.2	([16])	428.4	([16])	6,527.4	820.0	(NA)
1963	703.3	720.6	528.5	234.9	5,585.6	847.5	158.4
1958	636.3	465.6	579.9	251.9	5,015.4	762.9	153.5
1954	[17] 674.5	([17])	600.1	363.8	4,311.3	860.2	138.7
Including operations in manufactures:							
1967	[18] 2,361.7	([18])	([18])	([18])	6,550.3	(NA)	(NA)
1963	707.9	720.7	528.5	235.0	5,609.5	847.5	158.4
1958	[17] 639.4	[17] 465.6	580.0	251.9	5,039.2	762.9	153.8
1954[3]	[17] 677.2	([17])	600.1	363.9	4,325.8	860.2	138.7
1939[4]	42.8	(NA)	77.3	(NA)	641.4	(NA)	63.5
1919[6]	52.9	[19] .4	26.6	(NA)	160.4	(NA)	[20] 8.9
1909[6]	2.1	[19] (Z)	.2	(NA)	10.7	(NA)	(NA)
1902[7]	1.1	(NA)	1.6	(NA)	7.0	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[18] 72.4	([18])	([18])	([18])	255.9	(NA)	(NA)
1963	36.0	4.0	3.7	6.1	171.2	9.9	10.2
1958	[17] 30.4	[17] 1.2	3.0	5.9	158.4	8.0	
1954[3]	26.0	.1	4.5	9.9	159.9	10.3	11.0
1939[9]	4.8	(NA)	.2	(NA)	34.9	(NA)	4.0
1929[10]	10.8	(NA)	.1	2.5	49.8	(NA)	8.1
1919[6]	4.0	-	(Z)	(NA)	17.0	(NA)	[20] 1.2
1909[11]	.7	-	(Z)	(NA)	4.4	(NA)	(NA)
1902[12]	.4	(NA)	(Z)	(NA)	2.8	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Texas--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 1,189 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Figures for number of establishments in 1963 are not entirely comparable with those for earlier years. For 1963, operators of oil and gas field properties were asked to make separate reports by districts for 11 districts in Texas,whereas only one report was required for each State on previous years.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Except for value of shipments and value added in mining, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing limestone and granite at such operations was $21 thousand; this value was included in the value added in mining.

[5]Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for sand, gravel, common clay, and shale mining operations and limestone quarries operated as part of cement and lime plants. In 1939, there were 102 such mines and quarries with products valued at $3,963 thousand. For 1919, excludes data for one nonproducing establishment.

[7]Excludes data for sand, gravel, common clay, and shale mining operation. Includes data for 2 cement plants and for lime plants producing lime valued at $82 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]Except for number of establishments, excludes data for 4 nonproducing mines. See also footnote 8.

[10]Excludes data for common clay and shale mining operations. In 1939, there were 32 such mines with products valued at $256 thousand.

[11]Except for number of establishments, excludes data for 3 nonproducing establishments. See also footnote 10.

[12]Excludes data for nonproducing operation. See also footnote 13.

[13]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in 1958 and 1954,the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]For 1963, 1958, and 1954, excludes data for crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments.

[15]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[16]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale,and purchased fuels and electric energy.

[17]For 1958, figures for dimension stone operations in manufactures and, for 1954, all figures for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electric energy. Excludes the cost of natural gas received for processing at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[18]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[19]Represents natural gas purchased as a material or for resale.

[20]Excludes purchased electricity. For "all operations" in 1939, the quantity of purchased electricity amounted to less than 1 percent of the total kw.-hrs. equivalent of energy used; also, for "excluding oil and gas extraction industries" in 1929, to less than 1 percent.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	6,123	1,112	95.5	716.8	63.0	131.0	396.4	4,990.9	2,356.6	6,527.4	820.0	113.0	4,245.7
10	Metal mining	29	3	.2	1.1	.2	.4	.9	4.9	(D)	8.1	(D)	.4	(NA)
109	Miscellaneous metals ores	11	2	CC	D	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1092	Mercury ores	4	1	.1	.3	.1	.1	.2	-.1	.3	.2	(Z)	(D)	(D)
1093	Uranium-radium-vanadium ores	6	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	4	2	.1	1.0	.1	.2	.8	6.9	(D)	7.7	(D)	.1	(NA)
13	Oil and gas extraction	5,780	1,009	88.7	672.4	57.6	118.4	365.3	4,805.4	2,289.3	6,294.4	800.3	106.1	4,133.5
131	Crude petroleum and natural gas	3,100	365	45.0	386.7	20.2	39.5	134.3	3,863.1	945.2	4,179.3	629.0	54.1	3,267.0
	Crude petroleum	2,607	303	38.5	336.7	17.1	33.4	113.4	3,245.9	787.3	3,536.8	496.4	47.4	2,821.2
	Natural gas	493	62	6.5	50.0	3.1	6.1	20.9	617.2	157.9	642.6	132.6	6.7	451.6
1321	Natural gas liquids	313	110	6.3	51.2	5.4	10.9	42.9	474.8	1,117.5	1,490.1	102.3	6.9	360.8
138	Oil and gas field services	2,367	534	37.4	234.5	32.0	68.0	188.1	467.4	226.6	624.9	69.0	45.1	505.7
1381	Drilling oil and gas wells	699	195	13.1	85.1	11.9	24.5	74.4	173.9	115.9	255.0	34.8	19.0	206.8
1382	Oil and gas exploration services	205	40	3.1	19.9	2.5	5.9	14.5	46.8	17.5	54.9	9.4	4.1	36.1
1389	Oil and gas field service n.e.c.	1,463	299	21.2	129.6	17.6	37.7	99.2	246.7	93.1	315.1	24.8	22.0	262.8
14	Nonmetallic minerals, except fuels	310	98	6.4	42.2	5.1	12.0	29.4	173.7	62.9	217.3	19.3	6.4	100.1
142	Crushed and broken stone	41	25	1.6	9.3	1.3	3.2	6.6	20.3	11.3	27.1	4.5	1.3	13.8
1422	Crushed and broken limestone	31	18	1.2	7.4	.9	2.5	5.0	16.3	9.2	21.6	4.0	1.2	12.4
1423	Crushed and broken granite	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	9	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel	199	39	2.3	13.8	1.9	4.6	10.3	32.1	23.1	45.5	9.7	2.4	25.9
1442	Construction sand and gravel	189	35	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1445	Industrial sand, n.e.c.	8	4	.2	.8	.1	.3	.6	2.3	1.2	3.3	.2	(NA)	(NA)
145	Clay and related minerals	14	6	.2	1.3	.2	.4	.9	3.2	1.8	4.8	.2	.3	2.6
1452	Bentonite	4	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1459	Clay and related materials, n.e.c.	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.9
147	Chemical and fertilizer minerals	22	17	1.7	14.2	1.2	2.6	8.7	110.6	20.3	127.2	3.8	(D)	(D)
1474	Potash, soda, and borate minerals	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1476	Rock salt	2	2	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1477	Sulfur	12	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	19	10	.6	3.3	.5	1.2	2.5	6.6	6.3	11.9	1.0	.4	3.7
1494	Native asphalt and bitumens	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	4	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1499	Nonmetallic minerals, n.e.c.	11	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	72	12	0.8	3.8	0.8	1.5	3.5	17.8	5.1	22.9	[2]0.1	1.0	19.2
1411	Dimension stone	4	4	0.2	1.1	0.2	0.4	0.8	1.7	1.6	3.2	0.1	0.2	1.7
142	Crushed and broken stone (limestone)	20	6	0.3	1.5	0.3	0.6	1.5	8.9	2.4	11.3	(NA)	0.3	8.2
144	Sand and gravel	9	1	0.1	0.5	0.1	0.2	0.5	1.8	0.2	2.0	(NA)	0.1	3.0
145	Clay and related minerals	34	1	0.1	0.5	0.1	0.3	0.5	1.9	0.7	2.6	(NA)	(NA)	(NA)
1492	Gypsum	5	-	(Z)	0.2	(Z)	0.1	0.2	3.6	0.2	3.7	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Texas:													
	Establishments.....number..	6,123	6,032	2,046	6	37	2,003	173	1	152	20	314	3,499	91
	Employees.....1,000..	95.5	94.9	28.8	.2	.2	28.4	4.4	(D)	3.8	(D)	6.4	55.3	.6
	Value added in mining.mil.dol..	4,990.9	5,000.4	3,921.1	1.5	3.0	3,916.6	70.4	(D)	58.4	(D)	480.5	528.4	-9.6
10	Metal mining:													
	Establishments.....number..	29	28	15	5	10	-	3	-	2	1	4	6	1
	Employees.....1,000..	.2	(D)	.1	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)
	Value added in mining.mil.dol..	4.9	(D)	1.0	(D)	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	3	3	2	-	2	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
1021	Copper ores:													
	Establishments.....number..	3	3	3	-	3	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
103	Lead and zinc ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	4	4	2	-	2	-	-	-	-	-	2	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	11	10	6	3	3	-	2	-	1	1	2	-	1
	Employees.....1,000..	(D)	(D)	.1	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	(D)
	Value added in mining.mil.dol..	(D)	(D)	.7	(D)	(D)	-	(D)	-	(D)	(D)	(D)	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	4	4	1	-	1	-	3	-	3	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	6.9	6.9	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	4	4	1	-	1	-	3	-	3	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	6.9	6.9	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	5,780	5,692	1,995	-	-	1,995	-	-	-	-	305	3,392	88
	Employees.....1,000..	88.7	(D)	27.3	-	-	27.3	-	-	-	-	(D)	54.7	(D)
	Value added in mining.mil.dol..	4,805.4	(D)	3,816.0	-	-	3,816.0	-	-	-	-	(D)	524.1	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	3,100	3,013	1,995	-	-	1,995	-	-	-	-	-	1,018	87
	Employees.....1,000..	45.0	44.5	27.3	-	-	27.3	-	-	-	-	-	17.2	.5
	Value added in mining.mil.dol..	3,863.1	3,872.7	3,816.0	-	-	3,816.0	-	-	-	-	-	56.7	-9.5
1321	Natural gas liquids:													
	Establishments.....number..	313	312	-	-	-	-	-	-	-	-	305	7	1
	Employees.....1,000..	6.3	(D)	-	-	-	-	-	-	-	-	(D)	.1	(D)
	Value added in mining.mil.dol..	474.8	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	2,367	2,367	-	-	-	-	-	-	-	-	-	2,367	-
	Employees.....1,000..	37.4	37.4	-	-	-	-	-	-	-	-	-	37.4	-
	Value added in mining.mil.dol..	467.4	467.4	-	-	-	-	-	-	-	-	-	467.4	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Texas--Continued													
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	310	308	35	1	26	8	167	1	147	19	5	101	2
	Employees.....1,000..	6.4	(D)	(D)	(D)	.2	1.1	4.2	(D)	3.7	(D)	.1	(D)	(D)
	Value added in mining.mil.dol..	173.7	(D)	(D)	(D)	2.2	100.6	63.3	(D)	51.4	(D)	2.0	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	7	7	4	-	4	-	3	-	3	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone													
	Establishments.....number..	41	41	2	-	2	-	39	-	39	-	-	-	-
	Employees.....1,000..	1.6	1.6	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	20.3	20.3	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	199	197	12	-	11	1	96	-	82	14	3	86	2
	Employees.....1,000..	2.3	(D)	(D)	-	(D)	(D)	1.8	-	1.6	.3	(D)	.3	(D)
	Value added in mining.mil.dol..	32.1	(D)	(D)	-	(D)	(D)	27.0	-	23.6	3.4	(D)	3.4	(D)
145	Clay and related minerals:													
	Establishments.....number..	14	14	5	-	5	-	9	-	9	-	-	-	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	3.2	3.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	22	22	9	-	2	7	7	1	1	5	2	4	-
	Employees.....1,000..	1.7	1.7	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	110.6	110.6	(D)	-	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	8	8	-	-	-	-	-	-	-	-	-	8	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	19	19	3	1	2	-	13	-	13	-	-	3	-
	Employees.....1,000..	.6	.6	(D)	(D)	(D)	-	.4	-	.4	-	-	(D)	-
	Value added in mining.mil.dol..	6.6	6.6	(D)	(D)	(D)	-	4.7	-	4.7	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	6,123	7,732	Cost of supplies, total.....million dollars..	2,356.6	2,187.3
With 0 to 19 employees.....do....	5,011	6,700	Supplies used, minerals received for preparation, and purchased machinery.....do....	1,831.8	(NA)
With 20 to 99 employees.....do....	951	897	Cost of resales.....do....	5.8	(NA)
With 100 or more employees.....do....	161	135	Purchased fuels consumed.....do....	47.0	(NA)
All employees (average for year).....1,000..	95.5	113.0	Electric energy:		
Payroll (all employees), total for year.....million dollars..	716.8	734.5	Quantity purchased.....million kw.-hrs..	3,706.5	(NA)
			Cost.....million dollars..	43.6	(NA)
			Generated less sold.....million kw.-hrs..	1,071.3	(NA)
			Contract work.....million dollars..	428.4	528.5
Production, development, and exploration workers:					
Average for the year.....1,000..	63.0	75.7	Value of shipments and receipts (including resales), total.....do....	6,527.4	5,585.6
March.....do....	63.2	(NA)	Value of resales.....do....	10.4	(NA)
May.....do....	63.1	(NA)			
August.....do....	63.8	(NA)			
November.....do....	62.3	(NA)	Value added in mining.....do....	4,990.9	4,245.7
Man-hours.....millions..	131.0	161.2	Capital expenditures (except land and mineral rights), total.....do....	820.0	847.5
Wages.....million dollars..	396.4	428.4	Mineral development and exploration.....do....	319.7	376.7
			New structures and additions.....do....	127.9	
Supplemental labor cost not included in payroll.....do..	59.4	(NA)	New machinery and equipment.....do....	348.0	470.8
			Used plant and equipment.....do....	24.5	
			Mineral development and exploration expenditures, total.....do....	520.0	(NA)
Legally required expenditures, including Social Security contributions.....do..	29.9	(NA)	Capitalized.....do....	319.7	376.7
Payments for voluntary programs.....do..	29.5	(NA)	Expensed.....do....	200.3	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas, total	6,123	1,112	95.5	716.8	63.0	131.0	396.4	4,990.9	2,356.6	6,527.4	820.0	113.0	4,245.7
	COUNTIES [2]													
	Anderson county, total	76	7	.5	3.5	.4	.9	2.8	34.6	6.5	38.7	2.3	.4	22.4
13	Oil and gas extraction	76	7	.5	3.5	.4	.9	2.8	34.6	6.5	38.7	2.3	(D)	(D)
131	Crude petroleum and natural gas	46	2	.2	1.3	.1	.3	1.0	29.8	4.4	32.3	1.8	.2	19.6
138	Oil and gas field services	29	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Andrews county, total	185	29	1.7	12.7	1.3	2.9	9.1	217.6	73.3	268.9	22.0	2.0	199.5
13	Oil and gas extraction	185	29	1.7	12.7	1.3	2.9	9.1	217.6	73.3	268.9	22.0	2.0	199.5
131	Crude petroleum and natural gas	104	8	.8	6.6	.5	.9	3.8	192.4	55.6	227.6	20.4	.8	172.0
132	Oil and gas liquids	7	5	.2	1.3	.2	.3	1.3	14.1	12.8	26.7	.2	.2	14.6
138	Oil and gas field services	74	16	.8	4.8	.7	1.6	4.0	11.2	4.9	14.6	1.5	1.0	12.9
	Aransas county, total	45	1	.1	.9	.1	.2	.7	13.7	7.7	17.9	3.5	.2	15.2
13	Oil and gas extraction	45	1	.1	.9	.1	.2	.7	13.7	7.7	17.9	3.5	.2	15.2
	Archer county, total	117	3	.5	2.7	.4	.8	2.0	15.9	6.1	19.5	2.4	.7	20.5
13	Oil and gas extraction	117	3	.5	2.7	.4	.8	2.0	15.9	6.1	19.5	2.4	.7	20.5
131	Crude petroleum and natural gas	94	3	.4	2.1	.3	.6	1.5	14.7	5.5	17.9	2.2	.4	18.2
	Atascosa county, total	50	6	.4	3.0	.4	.8	2.4	19.7	11.6	30.3	1.0	.5	17.6
13	Oil and gas extraction	50	6	.4	3.0	.4	.8	2.4	19.7	11.6	30.3	1.0	.5	17.6
131	Crude petroleum and natural gas	30	3	.2	1.7	.2	.3	1.3	16.6	2.8	18.7	.7	.3	14.1
138	Oil and gas field services	17	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.5
	Austin county, total	24	1	.2	1.1	.1	.2	1.0	9.2	2.6	10.1	1.6	.1	6.5
13	Oil and gas extraction	23	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	6.5
138	Oil and gas field services	10	1	.1	.9	.1	.2	.9	1.8	.8	2.2	.5	(D)	(D)
	Bee county, total	93	6	.4	2.4	.4	.7	2.0	20.7	12.4	30.6	2.5	.5	19.6
13	Oil and gas extraction	93	6	.4	2.4	.4	.7	2.0	20.7	12.4	30.6	2.5	.4	19.6
138	Oil and gas field services	42	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Bexar county, total	111	13	1.5	9.6	.9	2.0	5.0	13.3	13.7	23.6	3.4	.9	17.8
13	Oil and gas extraction	88	8	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	13.9
131	Crude petroleum and natural gas	66	6	.3	2.6	.1	.2	.5	.9	.4	.6	.7	.2	12.8
138	Oil and gas field services	21	2	.6	3.7	.6	1.1	3.1	3.8	3.1	6.6	.2	.1	1.1
14	Nonmetallic minerals, except fuels	20	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	14	1	.1	.5	.1	.2	.4	1.2	.7	1.7	.1	.2	1.7
	Brazoria county, total	118	17	1.2	9.1	1.0	2.0	6.9	143.0	119.0	252.0	10.0	1.1	144.5
13	Oil and gas extraction	115	17	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	61	3	.5	4.1	.3	.6	2.5	112.4	20.3	123.5	9.2	.5	115.6
132	Natural gas liquids	6	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	24.9
138	Oil and gas field services	48	9	.4	2.6	.4	.8	2.2	5.7	2.0	7.0	.6	(D)	(D)
	Brooks county, total	50	2	.2	1.6	.2	.4	1.4	67.9	27.3	86.4	8.8	.2	27.0
13	Oil and gas extraction	50	2	.2	1.6	.2	.4	1.4	67.9	27.3	86.4	8.8	.2	27.0
138	Oil and gas field services	22	1	.1	.9	.1	.2	.8	1.4	.8	2.0	.3	.1	2.7
	Burnet county, total	8	4	.2	.9	.1	.3	.8	2.4	1.0	3.3	.1	.2	2.2
14	Nonmetallic minerals, except fuels	8	4	.2	.9	.1	.3	.8	2.4	1.0	3.3	.1	.2	2.2
142	Crushed and broken stone	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnote at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Caldwell county, total.....	66	5	.4	2.6	.4	.8	2.2	11.6	5.7	14.6	2.7	.5	11.1
13	Oil and gas extraction.....	66	5	.4	2.6	.4	.8	2.2	11.6	5.7	14.6	2.7	.5	11.1
131	Crude petroleum and natural gas.....	32	-	.1	.7	.1	.2	.6	6.8	3.3	8.0	2.2	.2	8.4
138	Oil and gas field services..	34	5	.3	1.9	.3	.6	1.6	4.7	2.4	6.6	.5	.3	2.8
	Calhoun county, total.....	56	1	.2	1.2	.2	.3	1.1	23.3	12.6	33.0	2.8	.2	23.3
13	Oil and gas extraction.....	56	1	.2	1.2	.2	.3	1.1	23.3	12.6	33.0	2.8	.2	23.3
138	Oil and gas field services..	17	1	.1	.6	.1	.2	.5	1.2	.4	1.6	(Z)	.1	1.0
	Carson county, total.....	48	3	.4	2.7	.3	.5	1.8	27.3	11.2	36.7	1.8	.6	29.4
13	Oil and gas extraction.....	48	3	.4	2.7	.3	.5	1.8	27.3	11.2	36.7	1.8	.6	29.4
131	Crude petroleum and natural gas.....	39	1	.2	1.6	.1	.3	1.1	17.2	3.2	19.0	1.4	.2	19.3
132	Natural gas liquids.....	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cass county, total.....	32	3	.2	1.1	.1	.3	.9	23.4	8.2	30.0	1.6	.2	6.2
13	Oil and gas extraction.....	30	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	6.2
	Chambers county, total.....	77	9	.6	4.3	.5	1.1	3.2	80.7	63.4	137.2	6.9	4.0	63.7
13	Oil and gas extraction.....	77	9	.6	4.3	.5	1.1	3.2	80.7	63.4	137.2	6.9	4.0	63.7
131	Crude petroleum and natural gas.....	38	3	.3	2.3	.2	.5	1.6	74.5	12.7	81.7	5.4	2.4	59.2
138	Oil and gas field services..	36	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Clay county, total.....	73	1	.2	1.3	.2	.4	1.0	8.8	4.3	11.5	1.6	.3	11.2
13	Oil and gas extraction.....	73	1	.2	1.3	.2	.4	1.0	8.8	4.3	11.5	1.6	.3	11.2
131	Crude petroleum and natural gas.....	51	-	.1	.6	.1	.2	.4	7.9	3.8	10.2	1.5	.1	10.0
138	Oil and gas field services..	22	1	.1	.7	.1	.2	.6	.8	.6	1.3	.1	(D)	(D)
	Cochran county, total.....	47	1	.1	1.0	.1	.1	.6	25.8	8.6	27.0	7.5	.2	16.9
13	Oil and gas extraction.....	47	1	.1	1.0	.1	.1	.6	25.8	8.6	27.0	7.5	.2	16.9
	Coke county, total.....	33	5	.2	1.7	.2	.4	1.5	29.8	10.7	38.4	2.1	.3	22.1
13	Oil and gas extraction.....	33	5	.2	1.7	.2	.4	1.5	29.8	10.7	38.4	2.1	.3	22.1
	Coleman county, total.....	65	-	.1	.7	.1	.2	.6	3.7	2.0	5.1	.6	.3	7.4
13	Oil and gas extraction.....	65	-	.1	.7	.1	.2	.6	3.7	2.0	5.1	.6	(D)	(D)
	Collin county, total.....	5	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Collingsworth county, total.....	8	1	.1	.9	.1	.2	.5	1.1	.2	1.2	.1	.1	1.2
13	Oil and gas extraction.....	8	1	.1	.9	.1	.2	.5	1.1	.2	1.2	.1	.1	1.2
131	Crude petroleum and natural gas.....	7	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.1
	Colorado county, total.....	77	11	.6	4.0	.5	1.2	3.2	47.6	35.1	77.5	5.1	.7	35.1
13	Oil and gas extraction.....	64	3	.2	1.4	.1	.3	.9	42.8	31.8	70.0	4.6	.3	29.6
14	Nonmetallic minerals, except fuels.....	13	8	.4	2.6	.4	.9	2.3	4.8	3.2	7.5	.5	.4	5.6
144	Sand and gravel.....	13	8	.4	2.6	.4	.9	2.3	4.8	3.2	7.5	.5	.4	5.6

See footnote at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Comal county, total	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Cooke county, total	96	10	.7	3.9	.6	1.1	2.9	23.1	6.4	26.9	2.6	.7	28.6
13	Oil and gas extraction	95	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	28.6
131	Crude petroleum and natural gas	67	6	.4	2.5	.3	.6	1.7	19.9	5.1	22.9	2.2	.4	24.8
138	Oil and gas field services	26	4	.2	1.3	.2	.5	1.1	3.0	1.1	3.7	.3	(D)	(D)
	Crane county, total	114	14	.8	5.6	.6	1.2	3.9	142.9	57.8	187.1	13.6	1.1	114.5
13	Oil and gas extraction	114	14	.8	5.6	.6	1.2	3.9	142.9	57.8	187.1	13.6	1.1	114.5
131	Crude petroleum and natural gas	66	4	.3	2.4	.2	.4	1.3	122.8	32.9	144.1	11.6	.4	91.6
132	Natural gas liquids	5	4	.2	1.6	.2	.3	1.3	16.3	23.4	38.2	1.3	.2	17.0
138	Oil and gas field services	43	6	.3	1.6	.3	.5	1.2	3.9	1.5	4.8	.6	.5	5.9
	Crockett county, total	95	6	.5	3.3	.4	.9	2.8	35.0	20.1	41.5	13.7	.3	22.7
13	Oil and gas extraction	95	6	.5	3.3	.4	.9	2.8	35.0	20.1	41.5	13.7	.3	22.7
131	Crude petroleum and natural gas	67	3	.2	1.3	.1	.3	1.0	27.1	12.4	27.5	12.0	.2	18.9
138	Oil and gas field services	24	3	.3	1.8	.2	.6	1.6	3.7	2.4	5.4	.7	(D)	(D)
	Dallas county, total	241	41	5.3	46.1	1.3	2.7	7.2	15.2	6.2	17.4	4.0	1.4	32.3
13	Oil and gas extraction	202	32	4.9	43.6	1.0	1.8	5.1	8.8	3.3	9.5	2.5	1.0	26.5
131	Crude petroleum and natural gas	148	20	3.9	37.0	.3	.5	.9	3.0	1.1	1.9	2.1	.4	20.1
138	Oil and gas field services	53	12	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	36	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	27	5	.3	1.7	.2	.6	1.4	4.9	2.3	5.8	1.4	.3	4.4
	Dawson county, total	74	4	.3	1.7	.3	.5	1.3	28.0	8.7	31.0	5.7	.4	22.7
13	Oil and gas extraction	73	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	27	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	De Witt county, total	67	1	.2	.9	.1	.3	.7	14.4	7.7	19.4	2.7	.2	(NA)
13	Oil and gas extraction	67	1	.2	.9	.1	.3	.7	14.4	7.7	19.4	2.7	.2	(NA)
	Duval county, total	103	6	.5	2.9	.4	.8	2.3	29.2	9.7	34.0	4.9	.7	34.7
13	Oil and gas extraction	101	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	57	3	.2	1.7	.2	.4	1.3	25.3	5.1	26.0	4.4	.4	29.0
138	Oil and gas field services	41	3	.2	1.0	.2	.3	.9	3.0	1.1	3.9	.1	(D)	(D)
	Eastland county, total	40	4	.2	1.3	.2	.4	1.0	2.4	2.7	4.8	.3	.3	6.6
13	Oil and gas extraction	39	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ector county, total	283	71	4.3	29.6	3.5	7.3	21.5	254.8	95.2	317.4	32.5	4.9	240.6
13	Oil and gas extraction	281	70	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	104	16	1.3	11.1	.9	1.7	6.5	199.6	54.9	226.7	27.8	.9	80.5
132	Natural gas liquids	8	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	169	48	2.7	15.4	2.3	5.0	12.5	28.5	10.9	35.6	3.7	3.7	39.2
	El Paso county, total	6	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.9
13	Oil and gas extraction	3	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	2	1	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Fisher county, total.....	49	2	.1	.8	.1	.2	.7	17.3	2.9	19.0	1.2	.2	16.2
13	Oil and gas extraction.....	49	2	.1	.8	.1	.2	.7	17.3	2.9	19.0	1.2	.2	16.2
	Fort Bend county, total.....	60	8	1.1	8.5	.8	1.7	6.1	69.0	14.6	77.9	5.7	.7	28.9
13	Oil and gas extraction.....	56	5	.7	5.9	.5	1.0	3.9	53.7	12.0	60.2	5.5	(D)	(D)
131	Crude petroleum and natural gas.....	33	2	.2	1.9	.1	.3	.9	47.8	8.8	51.7	4.9	.3	20.4
138	Oil and gas field services..	22	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	4	3	.4	2.6	.3	.7	2.1	15.3	2.6	17.7	.2	(D)	(D)
147	Chemical and fertilizer minerals.....	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gaines county, total.....	116	11	.8	6.3	.7	1.5	5.0	80.0	24.0	98.1	5.9	.8	80.6
13	Oil and gas extraction.....	114	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	80.6
131	Crude petroleum and natural gas.....	78	4	.2	1.8	.1	.3	1.1	69.5	18.0	82.6	5.0	.3	72.2
138	Oil and gas field services..	34	6	.5	4.0	.5	1.1	3.5	6.6	3.3	9.3	.6	(D)	(D)
	Galveston county, total.....	54	5	.4	2.8	.2	.5	1.7	44.5	10.5	46.3	8.7	.4	56.0
13	Oil and gas extraction.....	53	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	28	2	.2	1.7	.1	.2	.8	41.4	6.8	42.3	6.0	.2	52.6
138	Oil and gas field services..	23	3	.1	1.0	.1	.3	.8	1.9	.8	2.2	.5	(D)	(D)
	Garza county, total.....	53	-	.1	1.0	.1	.2	.6	7.6	2.3	8.9	1.0	.2	13.6
13	Oil and gas extraction.....	53	-	.1	1.0	.1	.2	.6	7.6	2.3	8.9	1.0	.2	13.6
	Goliad county, total.....	66	1	.1	1.0	.1	.3	.9	18.2	3.5	20.6	1.1	.2	11.0
13	Oil and gas extraction.....	66	1	.1	1.0	.1	.3	.9	18.2	3.5	20.6	1.1	.2	11.0
	Gray county, total.....	130	19	1.1	7.9	.9	1.7	5.6	46.2	19.1	58.4	6.9	1.2	48.0
13	Oil and gas extraction.....	130	19	1.1	7.9	.9	1.7	5.6	46.2	19.1	58.4	6.9	1.2	48.0
131	Crude petroleum and natural gas.....	70	8	.6	4.4	.4	.8	2.9	32.5	9.0	36.0	5.5	.6	36.4
138	Oil and gas field services..	54	8	.4	2.7	.4	.8	2.0	5.4	1.6	6.4	.6	.4	4.3
	Grayson county, total.....	66	6	.3	2.2	.3	.7	1.8	23.9	8.7	29.0	3.6	.5	28.6
13	Oil and gas extraction.....	61	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	16	3	.1	.9	.1	.3	.8	1.5	.5	1.8	.2	(D)	(D)
	Gregg county, total.....	242	28	1.7	11.1	1.3	2.5	7.5	96.1	16.7	107.0	5.8	1.7	88.4
13	Oil and gas extraction.....	241	28	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	174	13	1.0	6.5	.6	1.2	3.6	82.5	10.8	89.4	3.9	1.1	77.1
132	Natural gas liquids.....	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	5.7
138	Oil and gas field services..	63	12	.6	3.6	.5	1.1	3.1	7.1	3.0	8.3	1.7	(D)	(D)
	Guadalupe county, total.....	45	2	.2	1.1	.2	.3	.9	8.5	3.5	10.1	1.9	.2	7.9
13	Oil and gas extraction.....	44	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.9
138	Oil and gas field services..	21	1	.1	.5	.1	.2	.5	.9	.4	1.2	.1	.1	1.0
	Hansford county, total.....	53	1	.1	1.0	.1	.2	.7	21.6	28.3	45.5	4.3	.3	21.7
13	Oil and gas extraction.....	53	1	.1	1.0	.1	.2	.7	21.6	28.3	45.5	4.3	.3	21.7
	Hardin county, total.....	69	5	.4	2.6	.3	.5	1.9	30.5	13.5	39.9	4.2	.5	23.2
13	Oil and gas extraction.....	68	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	33	1	.1	.8	.1	.2	.6	24.0	3.8	24.1	3.7	.2	18.6
138	Oil and gas field services..	31	2	.2	1.1	.1	.3	1.0	1.8	.6	2.2	.2	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Harris county, total	482	105	12.2	118.0	3.4	7.4	21.6	99.9	69.1	146.6	22.4	5.7	89.1
13	Oil and gas extraction	451	96	11.5	112.8	3.0	6.5	19.4	93.4	57.8	132.6	18.6	5.5	86.9
131	Crude petroleum and natural gas	229	51	8.4	89.5	.8	1.5	5.2	59.5	13.1	60.4	12.1	2.8	53.7
132	Natural gas liquids	13	3	.1	1.2	.1	.3	1.1	9.6	31.0	39.4	1.2	.1	8.3
138	Oil and gas field services	209	42	3.0	22.1	2.1	4.7	13.1	24.3	13.8	32.8	5.3	2.6	24.9
14	Nonmetallic minerals, except fuels	29	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.2
144	Sand and gravel	23	4	.3	2.4	.2	.4	1.1	4.1	7.6	7.9	3.8	(D)	(D)
147	Chemical and fertilizer minerals	4	4	.2	1.9	(Z)	.1	.2	1.2	.4	1.6	(Z)	(D)	(D)
149	Miscellaneous nonmetallic minerals	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Harrison county, total	59	1	.2	1.0	.1	.3	.8	17.3	16.6	31.7	2.2	.3	14.9
13	Oil and gas extraction	58	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	46	1	.1	.6	.1	.1	.4	13.6	2.6	14.2	2.1	.1	11.3
	Haskell county, total	54	2	.2	1.1	.1	.3	.8	9.2	2.3	10.7	.8	.2	12.3
13	Oil and gas extraction	54	2	.2	1.1	.1	.3	.8	9.2	2.3	10.7	.8	.2	12.3
	Hemphill county, total	38	1	.1	1.1	.1	.3	1.0	15.0	4.8	7.5	12.2	.1	2.8
13	Oil and gas extraction	38	1	.1	1.1	.1	.3	1.0	15.0	4.8	7.5	12.2	.1	2.8
138	Oil and gas field services	16	1	.1	.8	.1	.2	.8	1.6	1.4	2.8	.3	(Z)	.4
	Henderson county, total	41	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	20.0
13	Oil and gas extraction	38	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	19.9
	Hidalgo county, total	94	14	.9	6.2	.6	1.3	4.3	60.2	32.7	84.0	8.9	.7	43.8
13	Oil and gas extraction	89	13	.9	6.0	.6	1.2	4.1	59.2	32.4	83.1	8.6	.7	43.7
131	Crude petroleum and natural gas	46	2	.1	1.0	.1	.2	.6	43.7	7.6	45.0	6.3	.2	36.4
138	Oil and gas field services	38	10	.7	4.5	.5	.9	3.1	9.3	2.6	11.0	1.0	.4	4.7
	Hockley county, total	80	14	.7	4.9	.5	1.1	3.5	67.7	25.7	82.4	11.0	.6	45.3
13	Oil and gas extraction	80	14	.7	4.9	.5	1.1	3.5	67.7	25.7	82.4	11.0	.6	45.3
131	Crude petroleum and natural gas	44	4	.3	2.2	.2	.3	1.2	55.9	18.7	64.7	9.9	.3	36.0
132	Natural gas liquids	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas services	33	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Howard county, total	119	10	.7	5.1	.6	1.4	4.3	46.8	36.0	54.0	28.8	.6	36.7
13	Oil and gas extraction	118	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	81	5	.3	2.5	.3	.6	1.9	37.9	9.1	41.8	5.3	.3	31.1
138	Oil and gas field services	35	4	E	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Hutchinson county, total	115	14	.9	6.5	.7	1.3	4.1	32.9	36.1	65.4	3.6	1.3	69.6
13	Oil and gas extraction	114	14	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	70	8	.6	4.1	.3	.6	2.1	20.6	5.7	24.2	2.0	.5	37.7
138	Oil and gas field services	37	5	.3	1.8	.3	.6	1.5	2.7	.9	3.3	.3	(D)	(D)
	Jack county, total	104	6	.4	2.5	.4	.8	2.1	11.8	6.8	15.6	2.9	.6	14.3
13	Oil and gas extraction	104	6	.4	2.5	.4	.8	2.1	11.8	6.8	15.6	2.9	.6	14.3
131	Crude petroleum and natural gas	69	1	.2	.9	.1	.3	.7	8.5	4.5	10.8	2.2	.3	11.0
138	Oil and gas field services	34	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES [2]--Continued													
	Jackson county, total.....	92	6	.4	2.6	.3	.7	2.0	58.8	14.9	65.5	8.2	.6	46.6
13	Oil and gas extraction.....	92	6	.4	2.6	.3	.7	2.0	58.8	14.9	65.5	8.2	.6	46.6
131	Crude petroleum and natural gas.....	62	1	.2	1.0	.1	.2	.7	54.4	9.1	57.4	6.1	.2	41.7
138	Oil and gas field services..	28	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.5
	Jefferson county, total.....	100	16	1.9	16.7	.9	2.0	7.2	84.5	47.6	124.6	7.6	1.5	77.7
13	Oil and gas extraction.....	96	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	50	7	1.1	10.6	.3	.7	2.4	41.9	7.4	42.9	6.5	.6	52.5
138	Oil and gas field services..	43	5	.4	3.0	.4	.8	2.4	5.6	2.6	7.7	.5	.6	5.5
14	Nonmetallic minerals, except fuels.....	4	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals.....	3	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Jim Hogg county, total.....	41	1	.1	.9	.1	.2	.6	12.0	6.0	14.9	3.1	.1	11.1
13	Oil and gas extraction.....	41	1	.1	.9	.1	.2	.6	12.0	6.0	14.9	3.1	.1	11.1
	Jim Wells county, total.....	112	13	1.3	7.9	1.1	2.1	6.5	86.3	50.9	129.8	7.5	1.1	59.1
13	Oil and gas extraction.....	112	13	1.3	7.9	1.1	2.1	6.5	86.3	50.9	129.8	7.5	(D)	(D)
131	Crude petroleum and natural gas.....	51	1	.2	1.6	.2	.3	1.3	73.4	14.6	85.3	2.8	.2	36.2
132	Natural gas liquids.....	5	2	.2	1.8	.2	.4	1.5	5.5	33.6	35.3	3.8	(D)	(D)
138	Oil and gas field services..	56	10	.8	4.5	.7	1.3	3.7	7.4	2.8	9.2	.9	(D)	(D)
	Jones county, total.....	92	1	.2	1.3	.2	.4	1.0	7.8	2.7	9.4	1.2	.4	14.2
13	Oil and gas extraction.....	91	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Karnes county, total.....	71	4	.3	1.5	.2	.5	1.2	25.2	15.2	37.5	2.9	.3	18.9
13	Oil and gas extraction.....	65	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	22	2	.1	.5	.1	.2	.3	1.1	.4	1.4	.1	(D)	(D)
	Kenedy county, total.....	26	1	.1	.5	.1	.2	.4	27.5	3.8	21.0	10.4	.1	3.5
13	Oil and gas extraction.....	26	1	.1	.5	.1	.2	.4	27.5	3.8	21.0	10.4	.1	3.5
	Kleberg county, total.....	55	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	21.2
13	Oil and gas extraction.....	52	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	21	3	.3	3.4	.2	.3	1.2	82.2	11.0	81.5	11.6	(Z)	8.5
132	Natural gas liquids.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	28	3	.3	1.3	.3	.5	1.1	2.7	1.2	3.4	.5	(D)	(D)
	Liberty county, total.....	101	22	1.1	7.6	.9	1.9	5.7	44.3	14.8	50.6	8.6	1.2	41.6
13	Oil and gas extraction.....	96	19	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	42	4	.3	2.2	.2	.4	1.2	30.1	9.2	32.0	7.3	.4	30.1
138	Oil and gas field services..	53	15	.6	4.0	.5	1.2	3.4	6.8	2.7	8.7	.8	(D)	(D)
14	Nonmetallic minerals, except fuels.....	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lipscomb county, total.....	51	2	.2	1.4	.2	.4	1.2	14.4	6.0	16.0	4.5	.2	8.5
13	Oil and gas extraction.....	51	2	.2	1.4	.2	.4	1.2	14.4	6.0	16.0	4.5	.2	8.5
138	Oil and gas field services..	15	2	.1	1.0	.1	.3	.9	1.6	1.3	2.8	(Z)	.1	1.2
	Live Oak county, total.....	69	4	.2	1.6	.2	.3	1.2	20.7	18.4	36.2	2.8	.3	20.1
13	Oil and gas extraction.....	69	4	.2	1.6	.2	.3	1.2	20.7	18.4	36.2	2.8	(D)	(D)
131	Crude petroleum and natural gas.....	48	3	.1	.9	.1	.2	.6	18.2	3.7	19.3	2.6	.1	17.8

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	McLennan county, total.....	10	3	.1	.6	.1	.2	.4	1.8	1.2	2.5	.5	(D)	(D)
	Matagorda county, total.....	96	12	1.0	6.8	.7	1.6	4.7	73.8	45.2	110.6	8.4	.9	64.1
13	Oil and gas extraction.....	95	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	64.1
131	Crude petroleum and natural gas.....	51	3	.2	1.7	.1	.2	.7	59.7	11.1	63.4	7.5	.3	55.5
138	Oil and gas field services..	40	6	.7	4.2	.6	1.2	3.1	6.7	3.3	9.1	.9	.5	5.1
	Maverick county, total.....	17	2	.1	.9	.1	.2	.8	7.2	3.4	10.0	.6	.1	3.7
	Midland county, total.....	293	61	5.2	45.5	2.2	4.5	15.4	67.3	31.0	76.5	21.7	4.2	(NA)
13	Oil and gas extraction.....	291	61	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	154	33	3.6	34.6	1.0	2.0	7.7	40.2	15.5	41.7	13.9	2.7	(NA)
132	Natural gas liquids.....	8	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	129	25	1.4	9.3	1.1	2.3	6.9	14.4	6.8	17.2	4.0	1.4	13.5
	Milam county, total.....	12	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	12.9
	Mitchell county, total.....	51	2	.1	.8	.1	.2	.6	6.7	2.5	8.6	.6	.2	6.2
13	Oil and gas extraction.....	50	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Montague county, total.....	92	6	.4	2.8	.4	.8	2.5	12.7	5.3	15.9	2.1	.6	16.9
13	Oil and gas extraction.....	91	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	64	2	.2	1.2	.2	.3	1.1	9.2	3.0	10.9	1.4	.2	13.3
138	Oil and gas field services..	26	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Montgomery county, total.....	59	6	.4	3.5	.3	.6	2.2	30.3	10.1	38.4	2.0	.6	24.4
13	Oil and gas extraction.....	59	6	.4	3.5	.3	.6	2.2	30.3	10.1	38.4	2.0	.6	24.4
131	Crude petroleum and natural gas.....	35	3	.2	2.1	.1	.3	1.1	26.3	4.2	28.9	1.6	.3	20.6
132	Natural gas liquids.....	5	2	.1	1.0	.1	.2	.8	3.2	5.5	8.5	.3	.2	2.9
	Moore county, total.....	33	5	.3	2.3	.2	.5	1.9	56.7	66.9	122.1	1.5	.4	39.3
13	Oil and gas extraction.....	33	5	.3	2.3	.2	.5	1.9	56.7	66.9	122.1	1.5	.4	39.3
131	Crude petroleum and natural gas.....	22	3	.1	.9	.1	.2	.7	33.5	3.8	36.8	.5	.1	21.3
132	Natural gas liquids.....	7	2	.2	1.5	.1	.3	1.2	23.1	63.0	85.1	1.0	.2	17.5
	Nolan county, total.....	58	5	.3	2.3	.3	.6	1.7	18.9	6.0	22.6	2.4	.4	16.2
13	Oil and gas extraction.....	57	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	36	2	.1	1.2	.1	.2	.7	14.6	3.0	15.7	2.0	.1	13.1
138	Oil and gas field services..	16	3	.2	.7	.1	.3	.7	1.4	.7	1.9	.2	(D)	(D)
	Nueces county, total.....	241	41	3.4	25.9	2.1	4.1	13.1	106.5	80.5	155.4	31.7	2.5	64.1
13	Oil and gas extraction.....	236	38	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	115	17	1.8	16.1	.7	1.3	4.9	84.2	28.3	83.6	28.9	1.3	46.2
132	Natural gas liquids.....	11	3	.2	1.6	.2	.4	1.4	11.1	46.2	56.6	.7	.2	8.7
138	Oil and gas field services..	110	18	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ochiltree county, total.....	82	11	.6	4.1	.5	1.1	7.4	25.0	28.1	40.2	8.9	.7	37.3
13	Oil and gas extraction.....	82	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	49	-	.1	.8	.1	.1	.5	20.9	10.7	23.6	8.0	.1	29.3
138	Oil and gas field services..	31	10	.4	3.1	.4	.9	2.8	6.2	3.0	8.4	.9	(D)	(D)
	Orange county, total.....	33	2	.1	.7	.1	.1	.4	7.5	2.1	8.7	.9	.3	8.3
13	Oil and gas extraction.....	33	2	.1	.7	.1	.1	.4	7.5	2.1	8.7	.9	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Panola county, total.....	60	5	.4	2.7	.3	.6	2.1	40.9	35.7	74.7	1.9	.6	45.7
13	Oil and gas extraction.....	60	5	.4	2.7	.3	.6	2.1	40.9	35.7	74.7	1.9	.6	45.7
131	Crude petroleum and natural gas.....	43	1	.1	1.0	.1	.2	.8	29.5	3.5	31.6	1.4	.3	38.0
132	Natural gas liquids.....	6	4	.2	1.3	.1	.3	1.1	10.8	32.0	42.4	.4	.2	6.4
	Pecos county, total.....	154	13	1.1	7.9	.9	1.8	6.4	88.9	41.1	98.3	31.7	.9	59.1
13	Oil and gas extraction.....	152	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	91	2	.2	1.6	.1	.3	.8	76.4	21.6	69.6	28.4	.5	51.1
138	Oil and gas field services..	57	10	.8	5.7	.7	1.4	5.1	10.4	8.0	16.9	1.4	(D)	(D)
	Potter county, total.....	51	7	.4	2.7	.2	.3	.8	13.6	4.2	16.9	.9	.4	22.1
13	Oil and gas extraction.....	48	5	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	20.1
131	Crude petroleum and natural gas.....	34	4	.2	1.9	.1	.1	.2	11.8	.6	11.9	.5	(D)	(D)
	Reagan county, total.....	88	13	.7	4.8	.6	1.3	4.0	38.7	41.0	60.8	18.9	.4	15.3
13	Oil and gas extraction.....	88	13	.7	4.8	.6	1.3	4.0	38.7	41.0	60.8	18.9	.4	15.3
131	Crude petroleum and natural gas.....	60	1	.1	.9	.1	.2	.7	29.3	18.8	31.3	16.9	.1	12.9
138	Oil and gas field services..	25	10	.5	3.2	.4	1.0	2.7	7.8	6.7	12.6	1.9	(D)	(D)
	Reeves county, total.....	82	9	.5	3.4	.4	.8	2.6	27.1	15.1	21.7	20.6	.4	15.3
13	Oil and gas extraction.....	81	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	39	2	.1	1.2	.1	.2	.7	21.7	9.7	11.7	19.7	.1	10.1
138	Oil and gas field services..	40	6	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Refugio county, total.....	92	9	.6	5.0	.5	1.2	4.0	86.9	20.1	101.0	6.0	.7	71.2
13	Oil and gas extraction.....	92	9	.6	5.0	.5	1.2	4.0	86.9	20.1	101.0	6.0	.7	71.2
131	Crude petroleum and natural gas.....	57	5	.4	3.1	.3	.6	2.3	80.4	8.7	84.2	4.9	.4	67.0
138	Oil and gas field services..	33	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Runnels county, total.....	61	1	.2	1.2	.2	.4	.9	5.3	3.4	7.8	1.0	.4	12.0
13	Oil and gas extraction.....	61	1	.2	1.2	.2	.4	.9	5.3	3.4	7.8	1.0	(D)	(D)
138	Oil and gas field services..	24	1	.1	.8	.1	.3	.6	1.7	.7	2.3	.2	.2	2.8
	Rusk county, total.....	119	16	.8	5.4	.7	1.4	4.1	59.1	14.1	68.5	4.6	1.0	45.0
13	Oil and gas extraction.....	117	16	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	45.0
131	Crude petroleum and natural gas.....	89	7	.5	3.2	.3	.7	2.2	51.3	7.9	55.6	3.6	.5	40.6
138	Oil and gas field services..	24	7	.3	1.6	.2	.5	1.3	3.4	1.7	4.2	.9	.4	3.3
	San Patricio county, total.....	116	7	.7	4.5	.5	1.1	3.4	42.0	26.5	60.7	7.9	.7	36.9
13	Oil and gas extraction.....	113	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	36.7
131	Crude petroleum and natural gas.....	71	3	.2	1.8	.2	.3	1.1	32.8	7.2	35.7	4.3	.3	30.9
138	Oil and gas field services..	36	1	.3	2.0	.3	.6	1.8	3.5	1.9	4.9	.5	.3	3.1
	Schleicher county, total.....	44	2	.1	1.0	.1	.2	.7	12.5	5.5	15.4	2.5	.1	9.4
13	Oil and gas extraction.....	44	2	.1	1.0	.1	.2	.7	12.5	5.5	15.4	2.5	.1	9.4
	Scurry county, total.....	116	15	.9	6.5	.7	1.5	5.1	149.6	24.6	170.0	4.2	.9	88.6
13	Oil and gas extraction.....	115	15	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	58	4	.3	2.2	.2	.3	1.3	127.2	14.8	138.9	3.0	.4	75.6
132	Natural gas liquids.....	4	3	.1	1.1	.1	.2	1.0	16.1	7.5	23.3	.3	.2	8.9
138	Oil and gas field services..	53	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Shackelford county, total.....	78	2	.2	1.3	.2	.4	1.1	4.8	3.6	6.7	1.6	.3	11.9
13	Oil and gas extraction.....	78	2	.2	1.3	.2	.4	1.1	4.8	3.6	6.7	1.6	.3	11.9
131	Crude petroleum and natural gas.....	48	2	.1	.7	.1	.2	.6	3.9	3.2	5.5	1.6	.2	11.1
138	Oil and gas field services..	30	-	.1	.5	.1	.2	.5	.9	.4	1.3	.1	.1	.8
	Smith county, total.....	123	13	1.0	7.8	.6	1.1	3.8	15.9	3.6	17.5	2.0	.9	15.1
13	Oil and gas extraction.....	121	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	74	9	.6	4.8	.3	.6	2.2	11.8	1.7	12.2	1.3	.6	11.1
138	Oil and gas field services..	46	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Starr county, total.....	61	5	.4	2.8	.4	.7	2.6	34.6	15.7	43.4	6.8	.5	26.8
13	Oil and gas extraction.....	61	5	.4	2.8	.4	.7	2.6	34.6	15.7	43.4	6.8	(D)	(D)
131	Crude petroleum and natural gas.....	36	2	.2	1.1	.1	.3	1.0	27.8	5.9	29.1	4.7	.2	19.7
138	Oil and gas field services..	22	2	.2	1.2	.2	.4	1.1	2.1	.6	2.7	.1	(D)	(D)
	Stephens county, total.....	78	4	.4	2.7	.3	.6	1.7	6.6	3.8	9.1	1.4	.4	9.2
13	Oil and gas extraction.....	78	4	.4	2.7	.3	.6	1.7	6.6	3.8	9.1	1.4	(D)	(D)
132	Natural gas liquids.....	6	2	.2	1.7	.1	.3	.9	2.2	2.1	3.9	.4	(D)	(D)
138	Oil and gas field services..	20	2	.1	.6	.1	.2	.5	1.2	.5	1.6	.1	.2	1.1
	Stonewall county, total.....	67	2	.2	1.6	.2	.4	1.3	15.5	4.0	17.8	1.6	.3	16.7
13	Oil and gas extraction.....	66	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	17	1	.1	.7	.1	.2	.6	1.3	.4	1.6	.1	(D)	(D)
	Tarrant county, total.....	88	11	1.5	11.9	.5	.7	1.5	6.0	2.4	6.6	1.8	.5	7.1
13	Oil and gas extraction.....	71	9	1.3	11.1	.3	.4	.9	3.3	1.2	3.0	1.4	.3	5.7
131	Crude petroleum and natural gas.....	56	7	1.1	9.9	.2	.3	.7	3.1	1.1	2.9	1.3	.2	5.2
138	Oil and gas field services..	15	2	.2	1.2	.1	.1	.3	.2	(Z)	.1	.1	.1	.6
14	Nonmetallic minerals, except fuels.....	15	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel.....	12	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Taylor county, total.....	164	14	1.0	6.4	.8	1.6	4.6	14.6	6.8	18.0	3.4	1.2	31.9
13	Oil and gas extraction.....	162	13	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	95	5	.5	3.2	.3	.6	1.9	8.7	3.6	10.0	2.3	.7	26.1
138	Oil and gas field services..	65	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Terry county, total.....	42	4	.4	3.1	.3	.6	2.1	14.0	4.2	17.4	.8	.4	15.1
13	Oil and gas extraction.....	41	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	25	1	.2	2.1	.1	.3	1.1	10.7	2.7	12.8	.6	.2	11.7
138	Oil and gas field services..	15	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Titus county, total.....	32	2	.2	1.6	.2	.4	1.2	9.3	1.8	9.6	1.5	.2	5.8
13	Oil and gas extraction.....	31	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	5.8
138	Oil and gas field services..	12	1	.1	.8	.1	.2	.7	1.0	.2	.8	.4	.1	.6
	Tom Green county, total.....	59	3	.7	4.2	.7	1.3	3.7	10.5	5.6	15.6	.6	.3	8.4
13	Oil and gas extraction.....	56	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services..	23	2	.6	3.7	.6	1.1	3.2	4.7	3.0	7.5	.2	.2	1.9
	Travis county, total.....	24	3	.2	1.4	.2	.4	1.1	1.6	.8	2.1	.3	(Z)	3.4
14	Nonmetallic minerals, except fuels.....	9	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone....	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments [1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Upton county, total	93	12	.6	4.4	.5	1.2	3.4	64.6	26.0	81.6	8.9	.7	39.2
13	Oil and gas extraction	93	12	.6	4.4	.5	1.2	3.4	64.6	26.0	81.6	8.9	.7	39.2
131	Crude petroleum and natural gas	64	3	.2	1.5	.1	.3	1.0	56.2	17.0	65.8	7.4	.2	29.7
138	Oil and gas field services	25	8	.4	2.3	.3	.8	1.9	4.6	2.6	6.4	.8	(D)	(D)
	Uvalde county, total	8	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.3
14	Nonmetallic minerals, except fuels	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Val Verde county, total	12	3	.1	.7	.1	.2	.5	3.4	1.4	1.7	3.1	(Z)	1.4
13	Oil and gas extraction	12	3	.1	.7	.1	.2	.5	3.4	1.4	1.7	3.1	(Z)	1.4
	Van Zandt county, total	26	3	.2	1.2	.1	.3	1.0	36.3	18.3	49.1	5.4	.5	14.4
13	Oil and gas extraction	26	3	.2	1.2	.1	.3	1.0	36.3	18.3	49.1	5.4	.5	14.4
	Victoria county, total	106	13	.8	5.1	.7	1.5	4.2	26.0	12.8	33.5	5.2	.7	28.1
13	Oil and gas extraction	102	12	.7	4.8	.6	1.4	3.9	25.0	11.0	32.5	3.5	.6	27.7
131	Crude petroleum and natural gas	52	2	.2	1.8	.2	.4	1.4	18.7	4.9	21.3	2.3	.3	23.3
138	Oil and gas field services	47	10	.5	2.9	.4	1.0	2.4	6.3	2.7	7.9	1.0	(D)	(D)
	Waller county, total	13	2	.2	1.7	.2	.3	1.2	30.6	17.1	39.1	8.7	.2	26.1
13	Oil and gas extraction	12	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
132	Natural gas liquids	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ward county, total	147	25	1.5	10.8	1.2	2.5	7.7	76.3	37.7	92.4	21.6	1.4	76.7
13	Oil and gas extraction	144	24	1.4	10.5	1.1	2.4	7.5	75.7	(D)	91.7	(D)	(D)	(D)
131	Crude petroleum and natural gas	66	6	.6	4.7	.4	.7	2.6	58.9	15.2	55.6	18.5	.5	64.3
138	Oil and gas field services	73	16	.8	5.2	.7	1.5	4.3	12.4	(D)	17.2	(D)	.8	9.1
	Webb county, total	54	1	.2	.9	.1	.3	.7	9.3	11.6	19.9	.9	.3	23.3
13	Oil and gas extraction	53	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	37	1	.1	.5	.1	.1	.3	6.9	2.2	8.3	.8	(D)	(D)
	Wharton county, total	85	4	.9	8.0	.7	1.5	5.1	82.9	10.8	90.4	3.3	1.1	55.0
13	Oil and gas extraction	83	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	55	1	.1	.8	.1	.2	.5	19.3	3.3	21.0	1.6	.3	25.8
138	Oil and gas field services	27	2	.3	1.9	.2	.5	1.5	2.6	1.1	3.3	.4	(D)	(D)
14	Nonmetallic minerals, except fuels	2	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wheeler county, total	50	2	.2	1.1	.1	.3	.8	8.6	5.2	12.2	1.5	.3	7.2
13	Oil and gas extraction	50	2	.2	1.1	.1	.3	.8	8.6	5.2	12.2	1.5	.3	7.2
	Wichita county, total	330	17	1.9	11.3	1.5	3.0	8.3	34.7	14.4	42.5	6.6	1.8	59.5
13	Oil and gas extraction	329	17	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	104	11	1.0	6.5	.8	1.5	4.5	27.0	9.6	31.5	5.1	1.1	53.2
138	Oil and gas field services	142	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	5.4

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Texas--Continued													
	COUNTIES[2]--Continued													
	Wilbarger county, total.....	60	4	.3	1.5	.2	.5	1.2	10.0	5.5	12.3	3.2	.4	13.6
13	Oil and gas extraction.....	60	4	.3	1.5	.2	.5	1.2	10.0	5.5	12.3	3.2	.4	13.6
131	Crude petroleum and natural gas.....	42	2	.1	.9	.1	.2	.6	8.8	4.9	10.7	3.0	.2	12.3
138	Oil and field gas services..	17	2	.1	.5	.1	.2	.5	1.1	.5	1.4	.2	(D)	(D)
	Williamson county, total.....	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Winkler county, total.....	130	14	.9	7.2	.8	1.7	5.6	77.6	32.1	99.0	10.6	1.3	74.8
13	Oil and gas extraction.....	130	14	.9	7.2	.8	1.7	5.6	77.6	32.1	99.0	10.6	1.3	74.8
131	Crude petroleum and natural gas.....	74	4	.4	3.0	.3	.6	2.1	66.8	16.8	74.3	9.3	.6	58.5
132	Natural gas liquids.....	8	2	.2	1.1	.1	.3	1.0	5.1	11.6	18.4	.4	.2	9.7
138	Oil and gas field services..	48	8	.4	3.0	.3	.8	2.4	5.6	3.6	8.3	.9	.6	6.5
	Wise county, total.....	78	9	.6	4.6	.5	1.3	3.3	37.3	20.0	49.7	7.7	.9	30.7
13	Oil and gas extraction.....	72	5	.4	2.6	.3	.6	1.8	33.3	17.4	43.6	7.0	.6	27.8
131	Crude petroleum and natural gas.....	51	2	.2	1.1	.1	.2	.6	16.8	6.9	20.0	3.6	.2	17.9
138	Natural gas liquids.....	19	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	6	4	.3	1.9	.2	.7	1.5	4.0	2.7	6.1	.6	.3	2.9
142	Crushed and broken stone....	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wood county, total.....	77	7	.4	2.6	.4	.8	2.2	58.6	20.5	75.5	3.6	.5	27.5
13	Oil and gas extraction.....	77	7	.4	2.6	.4	.8	2.2	58.6	20.5	75.5	3.6	.5	27.5
131	Crude petroleum and natural gas.....	51	1	.1	.8	.1	.2	.5	51.3	8.3	56.3	3.2	.2	22.4
138	Oil and gas field services..	23	5	.2	1.3	.2	.5	1.2	3.1	1.4	4.3	.2	.2	1.9
	Yoakum county, total.....	103	11	.8	5.0	.6	1.2	3.6	96.0	28.0	110.6	13.5	.7	58.2
13	Oil and gas extraction.....	103	11	.8	5.0	.6	1.2	3.6	96.0	28.0	110.6	13.5	.7	58.2
131	Crude petroleum and natural gas.....	57	3	.2	1.6	.1	.2	.7	82.4	19.6	91.3	10.7	.2	48.4
138	Oil and gas field services..	44	7	.5	2.8	.5	.9	2.4	5.5	1.7	6.6	.5	(D)	(D)
	Young county, total.....	153	5	.5	2.6	.5	.9	1.9	8.3	3.2	9.7	1.8	.9	19.5
13	Oil and gas extraction.....	152	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	95	3	.2	1.1	.2	.3	.8	4.8	2.0	5.8	1.1	.4	14.7
138	Oil and gas field services..	56	2	.3	1.5	.3	.5	1.1	3.4	1.1	3.8	.7	.5	4.4
	Offshore.....	47	18	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	10.1
13	Oil and gas extraction.....	47	18	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	10.1
131	Crude petroleum and natural gas.....	19	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	8.3
138	Oil and gas field services..	28	14	1.0	6.5	.9	1.9	5.3	21.9	11.6	25.1	8.4	.3	1.8

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operations in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation to Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas, total	6,123	29	-	4	5,780	310
0 to 4 employees	3,385	17	-	1	3,256	111
5 to 9 employees	889	6	-	-	834	49
10 to 19 employees	737	3	-	1	681	52
20 to 49 employees	739	1	-	1	668	69
50 to 99 employees	212	2	-	1	190	19
100 to 249 employees	115	-	-	-	107	8
250 to 499 employees	35	-	-	-	34	1
500 to 999 employees	10	-	-	-	9	1
1,000 to 2,499 employees	1	-	-	-	1	-
Anderson county, total	76	-	-	-	76	-
0 to 19 employees	69	-	-	-	69	-
20 to 99 employees	7	-	-	-	7	-
Andrews county, total	185	-	-	-	185	-
0 to 19 employees	156	-	-	-	156	-
20 to 99 employees	27	-	-	-	27	-
100 to 249 employees	2	-	-	-	2	-
Angelina county, total	6	-	-	1	5	-
0 to 19 employees	5	-	-	-	5	-
20 to 99 employees	1	-	-	1	-	-
Aransas county, total	45	-	-	-	45	-
0 to 19 employees	44	-	-	-	44	-
20 to 99 employees	1	-	-	-	1	-
Archer county, total	117	-	-	-	117	-
0 to 19 employees	114	-	-	-	114	-
20 to 99 employees	3	-	-	-	3	-
Armstrong county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Atascosa county, total	50	-	-	-	50	-
0 to 19 employees	44	-	-	-	44	-
20 to 99 employees	6	-	-	-	6	-
Austin county, total	24	-	-	-	23	1
0 to 19 employees	23	-	-	-	22	1
100 to 249 employees	1	-	-	-	1	-
Bandera county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Bastrop county, total	8	-	-	-	7	1
0 to 19 employees	8	-	-	-	7	1
Baylor county, total	29	-	-	-	28	1
0 to 19 employees	29	-	-	-	28	1
Bee county, total	93	-	-	-	93	-
0 to 19 employees	87	-	-	-	87	-
20 to 99 employees	6	-	-	-	6	-
Bell county, total	4	-	-	-	1	3
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	2	-	-	-	-	2
Bexar county, total	111	3	-	-	88	20
0 to 19 employees	98	3	-	-	80	15
20 to 99 employees	11	-	-	-	7	4
250 employees and over	2	-	-	-	1	1
Borden county, total	59	-	-	-	57	2
0 to 19 employees	59	-	-	-	57	2
Bowie county, total	11	-	-	-	10	1
0 to 19 employees	10	-	-	-	9	1
20 to 99 employees	1	-	-	-	1	-
Brazoria county, total	118	-	-	-	115	3
0 to 19 employees	101	-	-	-	98	3
20 to 99 employees	16	-	-	-	16	-
100 to 249 employees	1	-	-	-	1	-
Brazos county, total	3	-	-	-	2	1
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Brewster county, total	7	2	-	-	5	-
0 to 19 employees	6	1	-	-	5	-
20 to 99 employees	1	1	-	-	-	-
Briscoe county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Brooks county, total	50	-	-	-	50	-
0 to 19 employees	48	-	-	-	48	-
20 to 99 employees	2	-	-	-	2	-
Brown county, total	24	-	-	-	23	1
0 to 19 employees	23	-	-	-	23	-
20 to 99 employees	1	-	-	-	-	1
Burleson county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Burnet county, total	8	-	-	-	-	8
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	4	-	-	-	-	4
Caldwell county, total	66	-	-	-	66	-
0 to 19 employees	61	-	-	-	61	-
20 to 99 employees	5	-	-	-	5	-
Calhoun county, total	56	-	-	-	56	-
0 to 19 employees	55	-	-	-	55	-
20 to 99 employees	1	-	-	-	1	-
Callahan county, total	42	-	-	-	42	-
0 to 19 employees	41	-	-	-	41	-
20 to 99 employees	1	-	-	-	1	-
Cameron county, total	18	1	-	-	16	1
0 to 19 employees	18	1	-	-	16	1
Camp county, total	14	-	-	-	14	-
0 to 19 employees	14	-	-	-	14	-
Carson county, total	48	-	-	-	48	-
0 to 19 employees	45	-	-	-	45	-
20 to 99 employees	2	-	-	-	2	-
100 to 249 employees	1	-	-	-	1	-
Cass county, total	32	1	-	-	30	1
0 to 19 employees	29	1	-	-	27	1
20 to 99 employees	3	-	-	-	3	-
Castro county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Chambers county, total	77	-	-	-	77	-
0 to 19 employees	68	-	-	-	68	-
20 to 99 employees	8	-	-	-	8	-
100 to 249 employees	1	-	-	-	1	-
Cherokee county, total	36	1	-	-	34	1
0 to 19 employees	35	1	-	-	33	1
20 to 99 employees	1	-	-	-	1	-
Childress county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Clay county, total	73	-	-	-	73	-
0 to 19 employees	72	-	-	-	72	-
20 to 99 employees	1	-	-	-	1	-
Cochran county, total	47	-	-	-	47	-
0 to 19 employees	46	-	-	-	46	-
20 to 99 employees	1	-	-	-	1	-
Coke county, total	33	-	-	-	33	-
0 to 19 employees	28	-	-	-	28	-
20 to 99 employees	5	-	-	-	5	-
Coleman county, total	65	-	-	-	65	-
0 to 19 employees	65	-	-	-	65	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Collin county, total	5	-	-	-	3	2
0 to 19 employees	4	-	-	-	2	2
100 to 249 employees	1	-	-	-	1	-
Collingsworth county, total	8	-	-	-	8	-
0 to 19 employees	7	-	-	-	7	-
100 to 249 employees	1	-	-	-	1	-
Colorado county, total	77	-	-	-	64	13
0 to 19 employees	66	-	-	-	61	5
20 to 99 employees	11	-	-	-	3	8
Comal county, total	3	-	-	-	1	2
0 to 19 employees	2	-	-	-	1	1
100 to 249 employees	1	-	-	-	-	1
Comanche county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Concho county, total	10	-	-	-	10	-
0 to 19 employees	10	-	-	-	10	-
Cooke county, total	96	-	-	-	95	1
0 to 19 employees	86	-	-	-	85	1
20 to 99 employees	10	-	-	-	10	-
Cottle county, total	6	-	-	-	6	-
0 to 19 employees	6	-	-	-	6	-
Crane county, total	114	-	-	-	114	-
0 to 19 employees	100	-	-	-	100	-
20 to 99 employees	14	-	-	-	14	-
Crockett county, total	95	-	-	-	95	-
0 to 19 employees	89	-	-	-	89	-
20 to 99 employees	6	-	-	-	6	-
Crosby county, total	10	-	-	-	9	1
0 to 19 employees	9	-	-	-	9	-
20 to 99 employees	1	-	-	-	-	1
Culberson county, total	15	-	-	-	15	-
0 to 19 employees	15	-	-	-	15	-
Dallam county, total	8	-	-	-	8	-
0 to 19 employees	8	-	-	-	8	-
Dallas county, total	241	3	-	-	202	36
0 to 19 employees	200	3	-	-	170	27
20 to 99 employees	29	-	-	-	20	9
100 to 249 employees	7	-	-	-	7	-
250 employees and over	5	-	-	-	5	-
Dawson county, total	74	-	-	-	73	1
0 to 19 employees	70	-	-	-	69	1
20 to 99 employees	4	-	-	-	4	-
Deaf Smith county, total	4	1	-	-	3	-
0 to 19 employees	4	1	-	-	3	-
Denton county, total	8	-	-	-	7	1
0 to 19 employees	8	-	-	-	7	1
De Witt county, total	67	-	-	-	67	-
0 to 19 employees	66	-	-	-	66	-
10 to 99 employees	1	-	-	-	1	-
Dickens county, total	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-
Dimmit county, total	18	-	-	-	18	-
0 to 19 employees	18	-	-	-	18	-
Donley county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Duval county, total	103	-	-	-	101	2
0 to 19 employees	97	-	-	-	95	2
20 to 99 employees	6	-	-	-	6	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Eastland county, total	40	-	-	-	39	1
0 to 19 employees	36	-	-	-	36	-
20 to 99 employees	4	-	-	-	3	1
Ector county, total	283	-	-	-	281	2
0 to 19 employees	212	-	-	-	211	1
20 to 99 employees	64	-	-	-	63	1
100 to 249 employees	6	-	-	-	6	-
250 employees and over	1	-	-	-	1	-
Edwards county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Ellis county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
El Paso county, total	6	1	-	-	3	2
0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	2	1	-	-	-	1
250 employees and over	1	-	-	-	1	-
Erath county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Falls county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Fannin county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Fayette county, total	11	-	-	-	8	3
0 to 19 employees	9	-	-	-	8	1
20 to 99 employees	2	-	-	-	-	2
Fisher county, total	49	-	-	-	49	-
0 to 19 employees	47	-	-	-	47	-
20 to 99 employees	2	-	-	-	2	-
Floyd county, total	7	-	-	-	5	2
0 to 19 employees	7	-	-	-	5	2
Foard county, total	9	-	-	-	9	-
0 to 19 employees	9	-	-	-	9	-
Fort Bend county, total	60	-	-	-	56	4
0 to 19 employees	52	-	-	-	51	1
20 to 99 employees	4	-	-	-	3	1
100 to 249 employees	3	-	-	-	1	2
250 employees and over	1	-	-	-	1	-
Franklin county, total	25	-	-	-	25	-
0 to 19 employees	24	-	-	-	24	-
20 to 99 employees	1	-	-	-	1	-
Freestone county, total	29	-	-	-	28	1
0 to 19 employees	28	-	-	-	28	-
20 to 99 employees	1	-	-	-	-	1
Frio county, total	16	-	-	-	16	-
0 to 19 employees	15	-	-	-	15	-
20 to 99 employees	1	-	-	-	1	-
Gaines county, total	116	-	-	-	114	2
0 to 19 employees	105	-	-	-	104	1
20 to 99 employees	10	-	-	-	9	1
100 to 249 employees	1	-	-	-	1	-
Galveston county, total	54	-	-	-	53	1
0 to 19 employees	49	-	-	-	48	1
20 to 99 employees	5	-	-	-	5	-
Garza county, total	53	-	-	-	53	-
0 to 19 employees	53	-	-	-	53	-
Gillespie county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Glasscock county, total	52	-	-	-	52	-
0 to 19 employees	52	-	-	-	52	-
Goliad county, total	66	-	-	-	66	-
0 to 19 employees	65	-	-	-	65	-
20 to 99 employees	1	-	-	-	1	-
Gonzales county, total	15	-	-	-	14	1
0 to 19 employees	14	-	-	-	14	-
20 to 99 employees	1	-	-	-	-	1
Gray county, total	130	-	-	-	130	-
0 to 19 employees	111	-	-	-	111	-
20 to 99 employees	19	-	-	-	19	-
Grayson county, total	66	-	-	-	61	5
0 to 19 employees	60	-	-	-	57	3
20 to 99 employees	6	-	-	-	4	2
Gregg county, total	242	-	-	-	241	1
0 to 19 employees	214	-	-	-	213	1
20 to 99 employees	28	-	-	-	28	-
Grimes county, total	6	-	-	-	4	2
0 to 19 employees	6	-	-	-	4	2
Guadalupe county, total	45	-	-	1	44	-
0 to 19 employees	43	-	-	1	42	-
20 to 99 employees	2	-	-	-	2	-
Hale county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Hamilton county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Hansford county, total	53	-	-	-	53	-
0 to 19 employees	52	-	-	-	52	-
20 to 99 employees	1	-	-	-	1	-
Hardeman county, total	21	-	-	-	21	-
0 to 19 employees	21	-	-	-	21	-
Hardin county, total	69	-	-	-	68	1
0 to 19 employees	64	-	-	-	63	1
20 to 99 employees	5	-	-	-	5	-
Harris county, total	482	2	-	-	451	29
0 to 19 employees	377	2	-	-	355	20
20 to 99 employees	75	-	-	-	68	7
100 to 249 employees	20	-	-	-	18	2
250 employees and over	10	-	-	-	10	-
Harrison county, total	59	-	-	1	58	-
0 to 19 employees	58	-	-	1	57	-
20 to 99 employees	1	-	-	-	1	-
Hartley county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Haskell county, total	54	-	-	-	54	-
0 to 19 employees	52	-	-	-	52	-
20 to 99 employees	2	-	-	-	2	-
Hays county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Hemphill county, total	38	-	-	-	38	-
0 to 19 employees	37	-	-	-	37	-
20 to 99 employees	1	-	-	-	1	-
Henderson county, total	41	-	-	-	38	3
0 to 19 employees	37	-	-	-	34	3
20 to 99 employees	4	-	-	-	4	-
Hidalgo county, total	94	-	-	-	89	5
0 to 19 employees	80	-	-	-	76	4
20 to 99 employees	13	-	-	-	12	1
100 to 249 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation to Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Hill county, total	3	-	-	-	2	1
0 to 19 employees	3	-	-	-	2	1
Hockley county, total	80	-	-	-	80	-
0 to 19 employees	66	-	-	-	66	-
20 to 99 employees	13	-	-	-	13	-
100 to 249 employees	1	-	-	-	1	-
Hood county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Hopkins county, total	20	-	-	-	20	-
0 to 19 employees	19	-	-	-	19	-
20 to 99 employees	1	-	-	-	1	-
Houston county, total	35	-	-	-	35	-
0 to 19 employees	35	-	-	-	35	-
Howard county, total	119	-	-	-	118	1
0 to 19 employees	109	-	-	-	108	1
20 to 99 employees	10	-	-	-	10	-
Hudspeth county, total	2	-	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
Hunt county, total	5	-	-	-	5	-
0 to 19 employees	4	-	-	-	4	-
20 to 99 employees	1	-	-	-	1	-
Hutchinson county, total	115	-	-	-	114	1
0 to 19 employees	101	-	-	-	100	1
20 to 99 employees	13	-	-	-	13	-
100 to 249 employees	1	-	-	-	1	-
Irion county, total	29	-	-	-	29	-
0 to 19 employees	29	-	-	-	29	-
Jack county, total	104	-	-	-	104	-
0 to 19 employees	98	-	-	-	98	-
20 to 99 employees	6	-	-	-	6	-
Jackson county, total	92	-	-	-	92	-
0 to 19 employees	86	-	-	-	86	-
20 to 99 employees	6	-	-	-	6	-
Jasper county, total	19	-	-	-	19	-
0 to 19 employees	19	-	-	-	19	-
Jeff Davis county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Jefferson county, total	100	-	-	-	96	4
0 to 19 employees	84	-	-	-	83	1
20 to 99 employees	12	-	-	-	10	2
100 to 249 employees	3	-	-	-	2	1
250 employees and over	1	-	-	-	1	-
Jim Hogg county, total	41	-	-	-	41	-
0 to 19 employees	40	-	-	-	40	-
20 to 99 employees	1	-	-	-	1	-
Jim Wells county, total	112	-	-	-	112	-
0 to 19 employees	99	-	-	-	99	-
20 to 99 employees	10	-	-	-	10	-
100 to 249 employees	3	-	-	-	3	-
Johnson county, total	6	-	-	-	3	3
0 to 19 employees	6	-	-	-	3	3
Jones county, total	92	-	-	-	91	1
0 to 19 employees	91	-	-	-	91	-
20 to 99 employees	1	-	-	-	-	1
Karnes county, total	71	6	-	-	65	-
0 to 19 employees	67	5	-	-	62	-
20 to 99 employees	4	1	-	-	3	-
Kaufman county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Kenedy county, total	26	-	-	-	26	-
0 to 19 employees	25	-	-	-	25	-
20 to 99 employees	1	-	-	-	1	-
Kent county, total	29	-	-	-	28	1
0 to 19 employees	28	-	-	-	27	1
20 to 99 employees	1	-	-	-	1	-
Kerr county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
King county, total	14	-	-	-	14	-
0 to 19 employees	14	-	-	-	14	-
Kinney county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Kleberg county, total	55	-	-	-	52	3
0 to 19 employees	48	-	-	-	45	3
20 to 99 employees	3	-	-	-	3	-
100 to 249 employees	4	-	-	-	4	-
Knox county, total	31	-	-	-	31	-
0 to 19 employees	31	-	-	-	31	-
Lamar county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lamb county, total	10	-	-	-	9	1
0 to 19 employees	10	-	-	-	9	1
Lampasas county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
La Salle county, total	8	-	-	-	8	-
0 to 19 employees	8	-	-	-	8	-
Lavaca county, total	34	-	-	-	34	-
0 to 19 employees	33	-	-	-	33	-
20 to 99 employees	1	-	-	-	1	-
Lee county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Leon county, total	26	-	-	-	25	1
0 to 19 employees	26	-	-	-	25	1
Liberty county, total	101	-	-	-	96	5
0 to 19 employees	79	-	-	-	77	2
20 to 99 employees	21	-	-	-	19	2
100 to 249 employees	1	-	-	-	-	1
Limestone county, total	24	-	-	-	24	-
0 to 19 employees	24	-	-	-	24	-
Lipscomb county, total	51	-	-	-	51	-
0 to 19 employees	49	-	-	-	49	-
20 to 99 employees	2	-	-	-	2	-
Live Oak county, total	69	-	-	-	69	-
0 to 19 employees	65	-	-	-	65	-
20 to 99 employees	4	-	-	-	4	-
Llano county, total	4	-	-	-	1	3
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	1	-	-	-	-	1
Loving county, total	44	-	-	-	44	-
0 to 19 employees	43	-	-	-	43	-
20 to 99 employees	1	-	-	-	1	-
Lubbock county, total	39	-	-	-	38	1
0 to 19 employees	39	-	-	-	38	1
Lynn county, total	15	-	-	-	15	-
0 to 19 employees	15	-	-	-	15	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
McCulloch county, total	2	-	-	-	1	1
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
McLennan county, total	10	-	-	-	2	8
0 to 19 employees	7	-	-	-	2	5
20 to 99 employees	3	-	-	-	-	3
McMullen county, total	28	-	-	-	28	-
0 to 19 employees	28	-	-	-	28	-
Madison county, total	26	-	-	-	26	-
0 to 19 employees	26	-	-	-	26	-
Marion county, total	27	-	-	-	27	-
0 to 19 employees	27	-	-	-	27	-
Martin county, total	45	-	-	-	45	-
0 to 19 employees	45	-	-	-	45	-
Matagorda county, total	96	-	-	-	95	1
0 to 19 employees	84	-	-	-	84	-
20 to 99 employees	10	-	-	-	9	1
100 to 249 employees	2	-	-	-	2	-
Maverick county, total	17	2	-	-	13	2
0 to 19 employees	15	2	-	-	12	1
20 to 99 employees	2	-	-	-	1	1
Medina county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Menard county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Midland county, total	293	-	-	-	291	2
0 to 19 employees	232	-	-	-	230	2
20 to 99 employees	48	-	-	-	48	-
100 to 249 employees	11	-	-	-	11	-
250 employees and over	2	-	-	-	2	-
Milam county, total	12	-	-	1	11	-
0 to 19 employees	11	-	-	-	11	-
20 to 99 employees	1	-	-	1	-	-
Mills county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Mitchell county, total	51	-	-	-	50	1
0 to 19 employees	49	-	-	-	48	1
20 to 99 employees	2	-	-	-	2	-
Montague county, total	92	-	-	-	91	1
0 to 19 employees	86	-	-	-	85	1
20 to 99 employees	6	-	-	-	6	-
Montgomery county, total	59	-	-	-	59	-
0 to 19 employees	53	-	-	-	53	-
20 to 99 employees	6	-	-	-	6	-
Moore county, total	33	-	-	-	33	-
0 to 19 employees	28	-	-	-	28	-
20 to 99 employees	5	-	-	-	5	-
Morris county, total	6	-	-	-	6	-
0 to 19 employees	6	-	-	-	6	-
Motley county, total	6	-	-	-	6	-
0 to 19 employees	6	-	-	-	6	-
Nacogdoches county, total	11	1	-	-	9	1
0 to 19 employees	10	1	-	-	9	-
20 to 99 employees	1	-	-	-	-	1
Navarro county, total	37	-	-	-	36	1
0 to 19 employees	37	-	-	-	36	1
Newton county, total	18	-	-	-	17	1
0 to 19 employees	18	-	-	-	17	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Nolan county, total	58	-	-	-	57	1
0 to 19 employees	53	-	-	-	52	1
20 to 99 employees	5	-	-	-	5	-
Nueces county, total	241	-	-	-	236	5
0 to 19 employees	200	-	-	-	198	2
20 to 99 employees	34	-	-	-	31	3
100 to 249 employees	7	-	-	-	7	-
Ochiltree county, total	82	-	-	-	82	-
0 to 19 employees	71	-	-	-	71	-
20 to 99 employees	11	-	-	-	11	-
Oldham county, total	4	-	-	-	2	2
0 to 19 employees	3	-	-	-	2	1
20 to 99 employees	1	-	-	-	-	1
Orange county, total	33	-	-	-	33	-
0 to 19 employees	31	-	-	-	31	-
20 to 99 employees	2	-	-	-	2	-
Palo Pinto county, total	30	-	-	-	28	2
0 to 19 employees	29	-	-	-	27	2
20 to 99 employees	1	-	-	-	1	-
Panola county, total	60	-	-	-	60	-
0 to 19 employees	55	-	-	-	55	-
20 to 99 employees	5	-	-	-	5	-
Parker county, total	12	-	-	-	12	-
0 to 19 employees	10	-	-	-	10	-
20 to 99 employees	2	-	-	-	2	-
Pecos county, total	154	-	-	-	152	2
0 to 19 employees	141	-	-	-	139	2
20 to 99 employees	12	-	-	-	12	-
100 to 249 employees	1	-	-	-	1	-
Polk county, total	25	-	-	-	24	1
0 to 19 employees	24	-	-	-	23	1
20 to 99 employees	1	-	-	-	1	-
Potter county, total	51	-	-	-	48	3
0 to 19 employees	44	-	-	-	43	1
20 to 99 employees	7	-	-	-	5	2
Presidio county, total	4	1	1	-	2	-
0 to 19 employees	4	1	1	-	2	-
Rains county, total	10	-	-	-	10	-
0 to 19 employees	10	-	-	-	10	-
Randall county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Reagan county, total	88	-	-	-	88	-
0 to 19 employees	75	-	-	-	75	-
20 to 99 employees	13	-	-	-	13	-
Real county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Red River county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Reeves county, total	82	-	-	-	81	1
0 to 19 employees	73	-	-	-	72	1
20 to 99 employees	9	-	-	-	9	-
Refugio county, total	92	-	-	-	92	-
0 to 19 employees	83	-	-	-	83	-
20 to 99 employees	9	-	-	-	9	-
Roberts county, total	35	-	-	-	35	-
0 to 19 employees	35	-	-	-	35	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Robertson county, total	7	-	-	-	7	-
0 to 19 employees	6	-	-	-	6	-
20 to 99 employees	1	-	-	-	1	-
Runnels county, total	61	-	-	-	1	-
0 to 19 employees	60	-	-	-	60	-
20 to 99 employees	1	-	-	-	1	-
Rusk county, total	119	-	-	-	117	2
0 to 19 employees	103	-	-	-	101	2
20 to 99 employees	16	-	-	-	16	-
Sabine county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
San Augustine county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
San Jacinto county, total	12	-	-	-	11	1
0 to 19 employees	10	-	-	-	9	1
20 to 99 employees	2	-	-	-	2	-
San Patricio county, total	116	-	-	-	113	3
0 to 19 employees	109	-	-	-	107	2
20 to 99 employees	6	-	-	-	5	1
100 to 249 employees	1	-	-	-	1	-
San Saba county, total	3	-	-	-	2	1
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	1	-	-	-	-	1
Schleicher county, total	44	-	-	-	44	-
0 to 19 employees	42	-	-	-	42	-
20 to 99 employees	2	-	-	-	2	-
Scurry county, total	116	-	-	-	115	1
0 to 19 employees	101	-	-	-	100	1
20 to 99 employees	15	-	-	-	15	-
Shackelford county, total	78	-	-	-	78	-
0 to 19 employees	76	-	-	-	76	-
20 to 99 employees	2	-	-	-	2	-
Shelby county, total	13	-	-	-	13	-
0 to 19 employees	13	-	-	-	13	-
Sherman county, total	21	-	-	-	21	-
0 to 19 employees	20	-	-	-	20	-
20 to 99 employees	1	-	-	-	1	-
Smith county, total	123	-	-	-	121	2
0 to 19 employees	110	-	-	-	108	2
20 to 99 employees	12	-	-	-	12	-
100 to 249 employees	1	-	-	-	1	-
Somervell county, total	4	-	-	-	4	-
0 to 19 employees	4	-	-	-	4	-
Starr county, total	61	-	-	-	61	-
0 to 19 employees	56	-	-	-	56	-
20 to 99 employees	5	-	-	-	5	-
Stephens county, total	78	-	-	-	78	-
0 to 19 employees	74	-	-	-	74	-
20 to 99 employees	4	-	-	-	4	-
Sterling county, total	39	-	-	-	39	-
0 to 19 employees	38	-	-	-	38	-
20 to 99 employees	1	-	-	-	1	-
Stonewall county, total	67	-	-	-	66	1
0 to 19 employees	65	-	-	-	64	1
20 to 99 employees	2	-	-	-	2	-
Sutton county, total	21	-	-	-	21	-
0 to 19 employees	20	-	-	-	20	-
20 to 99 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Swisher county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Tarrant county, total	88	2	-	-	71	15
0 to 19 employees	77	2	-	-	62	3
20 to 99 employees	7	-	-	-	5	2
100 to 249 employees	2	-	-	-	2	-
250 employees and over	2	-	-	-	2	-
Taylor county, total	164	-	-	-	162	2
0 to 19 employees	150	-	-	-	149	1
20 to 99 employees	14	-	-	-	13	1
Terrell county, total	10	-	-	-	10	-
0 to 19 employees	9	-	-	-	9	-
20 to 99 employees	1	-	-	-	1	-
Terry county, total	42	-	-	-	41	1
0 to 19 employees	38	-	-	-	38	-
20 to 99 employees	3	-	-	-	2	1
100 to 249 employees	1	-	-	-	1	-
Throckmorton county, total	49	-	-	-	49	-
0 to 19 employees	49	-	-	-	49	-
Titus county, total	32	1	-	-	31	-
0 to 19 employees	30	1	-	-	29	-
20 to 99 employees	2	-	-	-	2	-
Tom Green county, total	59	-	-	-	56	3
0 to 19 employees	56	-	-	-	54	2
20 to 99 employees	2	-	-	-	1	1
250 employees and over	1	-	-	-	1	-
Travis county, total	24	-	-	-	15	9
0 to 19 employees	21	-	-	-	14	7
20 to 99 employees	2	-	-	-	1	1
100 to 249 employees	1	-	-	-	-	1
Trinity county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Tyler county, total	18	-	-	-	18	-
0 to 19 employees	18	-	-	-	18	-
Upshur county, total	33	-	-	-	32	1
0 to 19 employees	32	-	-	-	31	1
20 to 99 employees	1	-	-	-	1	-
Upton county, total	93	-	-	-	93	-
0 to 19 employees	81	-	-	-	81	-
20 to 99 employees	12	-	-	-	12	-
Uvalde county, total	8	-	-	-	3	5
0 to 19 employees	6	-	-	-	3	3
20 to 99 employees	2	-	-	-	-	2
Val Verde county, total	12	-	-	-	12	-
0 to 19 employees	9	-	-	-	9	-
20 to 99 employees	3	-	-	-	3	-
Van Zandt county, total	26	-	-	-	26	-
0 to 19 employees	23	-	-	-	23	-
20 to 99 employees	3	-	-	-	3	-
Victoria county, total	106	1	-	-	102	3
0 to 19 employees	93	1	-	-	90	2
20 to 99 employees	13	-	-	-	12	1
Walker county, total	11	-	-	-	10	1
0 to 19 employees	11	-	-	-	10	1
Waller county, total	13	-	-	-	12	1
0 to 19 employees	11	-	-	-	10	1
20 to 99 employees	1	-	-	-	1	-
100 to 249 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Texas--Continued						
Ward county, total	147	-	-	-	144	3
0 to 19 employees	122	-	-	-	120	2
20 to 99 employees	23	-	-	-	22	1
100 to 249 employees	2	-	-	-	2	-
Washington county, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-
Webb county, total	54	-	-	-	53	1
0 to 19 employees	53	-	-	-	52	1
20 to 99 employees	1	-	-	-	1	-
Wharton county, total	85	-	-	-	83	2
0 to 19 employees	81	-	-	-	80	1
20 to 99 employees	2	-	-	-	2	-
100 to 249 employees	1	-	-	-	1	-
250 employees and over	1	-	-	-	-	1
Wheeler county, total	50	-	-	-	50	-
0 to 19 employees	48	-	-	-	48	-
20 to 99 employees	2	-	-	-	2	-
Wichita county, total	330	-	-	-	329	1
0 to 19 employees	313	-	-	-	312	1
20 to 99 employees	15	-	-	-	15	-
100 to 249 employees	2	-	-	-	2	-
Wilbarger county, total	60	-	-	-	60	-
0 to 19 employees	56	-	-	-	56	-
20 to 99 employees	4	-	-	-	4	-
Willacy county, total	22	-	-	-	22	-
0 to 19 employees	22	-	-	-	22	-
Williamson county, total	7	-	-	-	3	4
0 to 19 employees	5	-	-	-	3	2
20 to 99 employees	2	-	-	-	-	2
Wilson county, total	17	-	-	-	17	-
0 to 19 employees	17	-	-	-	17	-
Winkler county, total	130	-	-	-	130	-
0 to 19 employees	116	-	-	-	116	-
20 to 99 employees	14	-	-	-	14	-
Wise county, total	78	-	-	-	72	6
0 to 19 employees	69	-	-	-	67	2
20 to 99 employees	9	-	-	-	5	4
Wood county, total	77	-	-	-	77	-
0 to 19 employees	70	-	-	-	70	-
20 to 99 employees	7	-	-	-	7	-
Yoakum county, total	103	-	-	-	103	-
0 to 19 employees	92	-	-	-	92	-
20 to 99 employees	11	-	-	-	11	-
Young county, total	153	-	-	-	152	1
0 to 19 employees	148	-	-	-	147	1
20 to 99 employees	5	-	-	-	5	-
Zapata county, total	26	-	-	-	26	-
0 to 19 employees	25	-	-	-	25	-
20 to 99 employees	1	-	-	-	1	-
Zavala county, total	11	-	-	-	11	-
0 to 19 employees	11	-	-	-	11	-
Offshore total	47	-	-	-	47	-
0 to 19 employees	29	-	-	-	29	-
20 to 99 employees	14	-	-	-	14	-
100 to 249 employees	4	-	-	-	4	-

Standard notes: -Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

CURRENT POPULATION REPORTS

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.

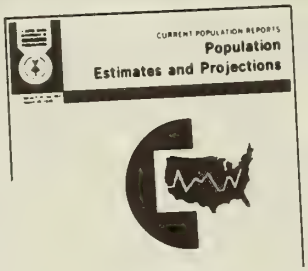


P-20 POPULATION CHARACTERISTICS.

Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.

P-23 SPECIAL STUDIES.

Infrequent reports on methods, concepts, or specialized data.



P-25 POPULATION ESTIMATES AND PROJECTIONS.

Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES.

Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.

P-27 FARM POPULATION.

(Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES.

Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

P-60 CONSUMER INCOME.

Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

P-65 CONSUMER BUYING INDICATORS.

Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

C3.186: (Nos.)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

From the Bureau of the Census

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-863

1967 CENSUS OF Mineral Industries



MIC67(2)-43

AREA STATISTICS

UTAH

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

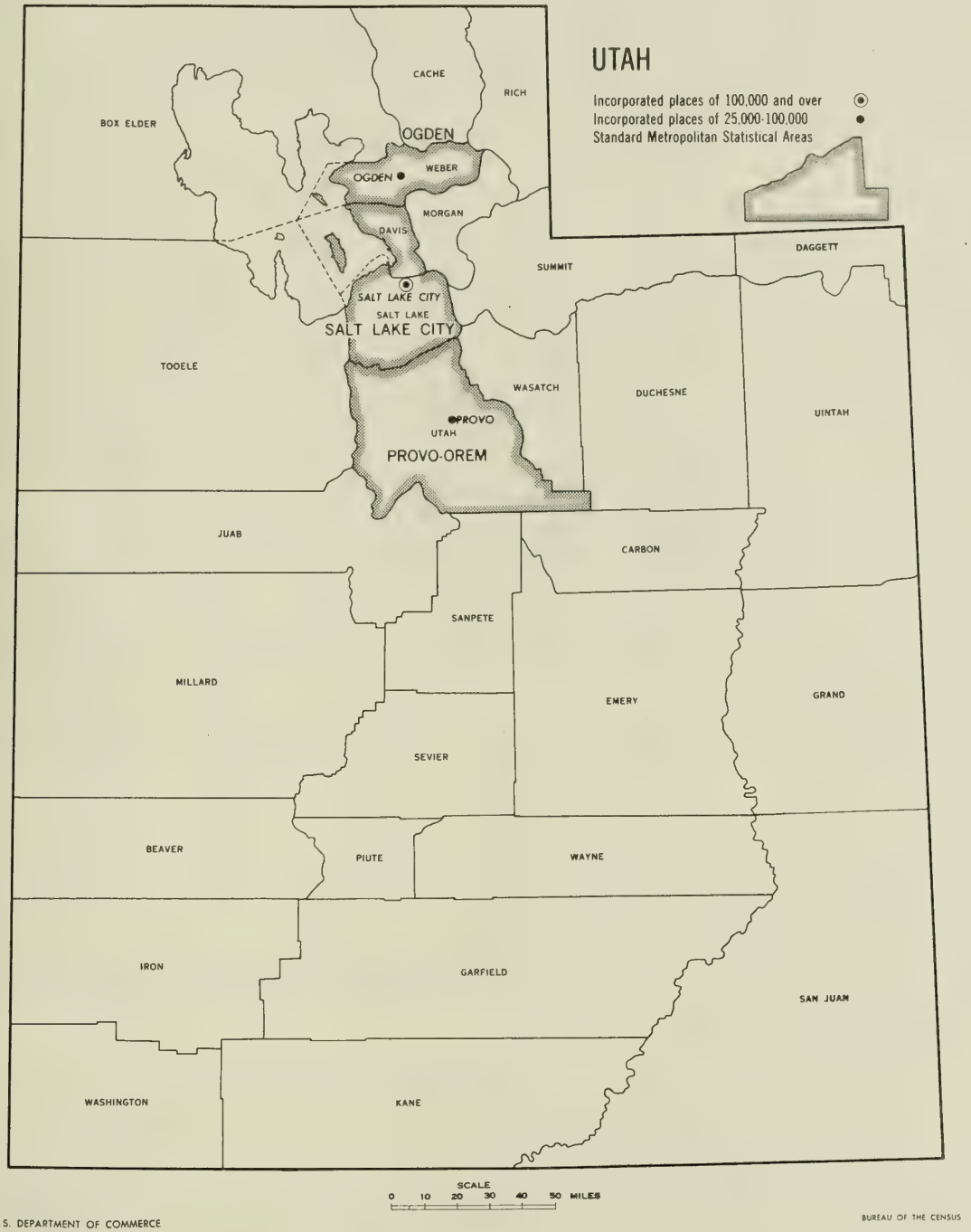
NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]308	66	8.5	65.7	6.7	13.4	48.3	233.7
1963	[1]384	71	10.7	68.8	9.1	17.3	55.6	267.8
1958	450	79	14.0	79.9	11.6	22.9	62.9	[2]246.2
1954	555	59	12.6	56.6	10.2	19.8	43.3	[2]151.7
Including operations in manufactures:								
1967	323	68	8.6	66.9	6.8	13.7	49.5	237.1
1963	405	72	10.8	69.5	9.2	17.6	56.4	270.7
1958	468	79	14.1	80.3	11.7	23.0	63.2	[2]250.1
1954[3]	562	59	12.7	56.8	10.3	19.9	43.4	[2]153.2
1939	[4]199	(NA)	10.8	16.6	9.5	18.5	13.3	51.6
1925[5]	186	(NA)	13.6	24.6	12.6	(NA)	21.9	62.8
1919[6]	189	(NA)	11.2	19.8	10.2	(NA)	17.8	29.9
1909[6]	504	(NA)	11.7	11.2	11.0	(NA)	9.8	16.1
1902[7]	[4]451	(NA)	7.3	6.8	[8]6.7	(NA)	6.0	9.9

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]158.1	([10])	20.0	([10])	357.5	54.3	(NA)
1963	52.5	100.8	35.1	20.8	423.8	53.3	3.8
1958	75.5	101.9	47.2	22.4	428.0	65.1	4.7
1954	39.6	75.6	16.6	10.1	[2]273.5	19.4	3.9
Including operations in manufactures:							
1967	[11]178.6	([11])	([11])	([11])	361.4	[13](NA)	(NA)
1963	[12]53.0	100.8	[12]35.1	[13]20.8	427.1	[13]53.3	[13]3.8
1958	75.8	101.9	[12]47.2	[13]22.4	432.3	[13]65.1	[13]4.7
1954[2]	[12]39.7	75.6	[12]16.6	[13]10.1	[2]275.2	[13]19.4	[13]3.9
1939	11.2	(NA)	.3	(NA)	63.0	(NA)	1.3
1929[4]	18.1	(NA)	2.1	4.2	83.1	(NA)	1.3
1919[5]	10.7	.3	.6	(NA)	41.5	(NA)	[14]1.6
1909[5]	5.5	.1	.4	(NA)	22.1	(NA)	(NA)
1902[6]	2.3	(NA)	.2	(NA)	12.4	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 58 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Represents number of mines and quarries and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for oil and gas extraction and common clay and shale operations, if any. In 1939, there were 4 oil and gas extraction operations, and 4 common clay and shale mines with products valued at $35 thousand.

[6]Excludes data for sand and gravel and common clay and shale mining operations and for limestone quarries operated as parts of cement and lime plants. For 1929, 3 such sand and gravel operations were reported with products valued at $255 thousand, and 3 such limestone quarries.

[7]Includes data for one cement plant and for lime plants producing lime valued at $99 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Excludes data for mining operations in manufacturing establishments.

[14]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 37 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	308	66	8.5	65.7	6.7	13.4	48.3	233.7	178.1	357.5	54.3	10.7	267.8
10	Metal mining	99	20	4.6	36.7	3.4	7.2	26.0	104.7	102.4	194.3	12.8	6.5	(NA)
1011	Iron ores	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	11.1
1021	Copper ores	13	5	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	21	6	1.0	7.0	.8	1.7	5.3	7.5	13.9	20.5	.9	1.1	12.0
1032	Lead ores	19	6	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1042	Lode gold	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1081	Metal mining services	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	44	4	.4	3.0	.3	.6	1.9	18.3	10.9	27.8	1.4	(D)	(D)
1094	Uranium-radium-vanadium ores	40	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.9	40.4
12	Bituminous coal and lignite mining	31	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	31	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	30	12	1.3	9.7	1.1	1.8	7.3	23.7	26.2	48.2	1.7	1.7	23.3
1213	Bituminous and lignite mining services, n.e.c	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	112	21	1.1	7.9	.9	1.9	6.5	80.0	38.0	94.3	23.6	1.3	100.1
131	Crude petroleum and natural gas	54	7	.4	2.7	.3	.5	1.8	66.6	23.6	69.5	20.7	.5	89.3
1312	Crude petroleum	41	5	.3	2.2	.2	.4	1.6	65.8	22.5	68.1	20.2	.4	84.1
1313	Natural gas	13	2	.1	.5	(Z)	.1	.2	.8	1.2	1.4	.6	.1	5.1
138	Oil and gas field services	53	14	.7	4.9	.7	1.3	4.4	11.5	(D)	14.8	(D)	(D)	(D)
1381	Drilling oil and gas wells	15	5	.2	2.1	.3	.5	2.0	3.5	2.6	5.5	.7	(D)	(D)
1382	Oil and gas exploration services	14	-	.1	.4	.1	.1	.3	.8	.4	1.0	.2	(D)	(D)
1389	Oil and gas field services, n.e.c	24	9	.4	2.4	.3	.7	2.1	7.1	2.1	8.4	.9	.3	3.0
14	Nonmetallic minerals, except fuels	66	12	1.4	10.0	1.1	2.4	8.3	24.9	10.8	20.1	15.6	1.2	(NA)
142	Crushed and broken stone	7	1	.1	.6	.1	.2	.5	1.8	.5	2.1	.2	.1	2.1
1422	Crushed and broken limestone	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.0
144	Sand and gravel	20	1	.1	.7	.1	.2	.5	1.1	.7	1.7	.1	.3	3.8
1442	Construction sand and gravel	19	1	.1	.6	.1	.2	.5	1.0	.6	1.6	.1	(D)	(D)
145	Clay and related minerals	10	1	.1	1.2	.1	.3	1.1	1.6	(D)	2.0	(D)	.2	1.1
1455	Kaolin and ball clay	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	10	5	.7	5.4	.5	1.2	4.3	16.5	6.5	8.1	14.9	(D)	(D)
1474	Potash, soda, and borate minerals	4	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1481	Nonmetallic minerals services	5	1	.1	.5	.1	.1	.5	.8	(D)	1.2	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	9	3	.2	1.5	.2	.4	1.3	3.1	2.4	5.0	.5	(D)	(D)
1494	Native asphalt and bitumens	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	15	2	0.1	1.2	0.1	0.3	1.2	3.4	0.5	3.9	(NA)	0.1	2.8
144	Sand and gravel	9	1	0.1	1.0	0.1	0.2	1.0	1.6	0.3	1.9	(NA)	(Z)	0.7

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Utah:													
	Establishments.....number..	308	283	125	70	22	33	57	23	33	1	10	91	25
	Employees.....1,000..	8.5	8.5	3.2	1.1	1.6	.4	2.7	(D)	.5	(D)	1.2	1.4	.1
	Value added in mining.mil.dol..	233.7	227.9	133.8	17.2	47.6	68.9	49.9	(D)	13.3	(D)	30.0	14.3	5.7
10	Metal mining:													
	Establishments.....number..	99	87	64	58	6	-	6	1	5	-	4	13	12
	Employees.....1,000..	4.6	4.6	2.6	1.0	1.6	-	.5	(D)	(D)	-	(D)	(D)	(Z)
	Value added in mining.mil.dol..	104.7	104.8	62.8	15.7	47.2	-	13.4	(D)	(D)	-	(D)	(D)	-.1
1011	Iron ores:													
	Establishments.....number..	5	4	2	-	2	-	2	-	2	-	-	-	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	(D)
1021	Copper ores:													
	Establishments.....number..	13	9	3	1	2	-	2	-	2	-	1	3	4
	Employees.....1,000..	(D)	2.7	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
	Value added in mining.mil.dol..	(D)	62.1	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	21	17	14	14	-	-	-	-	-	-	1	2	4
	Employees.....1,000..	1.0	1.0	(D)	(D)	-	-	-	-	-	-	(D)	(D)	(Z)
	Value added in mining.mil.dol..	7.5	7.5	(D)	(D)	-	-	-	-	-	-	(D)	(D)	(Z)
104	Gold and silver ores:													
	Establishments.....number..	8	7	6	6	-	-	1	1	-	-	-	-	1
	Employees.....1,000..	(D)	.2	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	4.0	(D)	(D)	-	-	(D)	(D)	-	-	-	-	(D)
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining.mil.dol..	1.1	1.1	-	-	-	-	-	-	-	-	-	1.1	-
109	Miscellaneous metal ores:													
	Establishments.....number..	44	42	38	36	2	-	1	-	1	-	2	1	2
	Employees.....1,000..	.4	(D)	.2	(D)	(D)	--	(D)	-	(D)	-	(D)	(D)	(D)
	Value added in mining.mil.dol..	18.3	(D)	4.6	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	31	31	9	9	-	-	17	17	-	-	1	4	-
	Employees.....1,000..	1.4	1.4	(D)	(D)	-	-	1.2	1.2	-	-	(D)	.2	-
	Value added in mining.mil.dol..	24.1	24.1	(D)	(D)	-	-	23.0	23.0	-	-	(D)	.4	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	31	31	9	9	-	-	17	17	-	-	1	4	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	1.2	1.2	-	-	(D)	2	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	23.0	23.0	-	-	(D)	.4	-
13	Oil and gas extraction:													
	Establishments.....number..	112	100	32	-	-	32	-	-	-	-	5	63	12
	Employees.....1,000..	1.1	(D)	(D)	-	-	(D)	-	-	-	-	(Z)	.7	(D)
	Value added in mining.mil.dol..	80.0	(D)	(D)	-	-	(D)	-	-	-	-	1.9	11.8	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	54	44	32	-	-	32	-	-	-	-	-	12	12
	Employees.....1,000..	.4	(D)	(D)	-	-	(D)	-	-	-	-	-	(Z)	(D)
	Value added in mining.mil.dol..	66.6	(D)	(D)	-	-	(D)	-	-	-	-	-	.4	(D)
1321	Natural gas liquids:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	5	-	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	(Z)	-	-
	Value added in mining.mil.dol..	1.9	1.9	-	-	-	-	-	-	-	-	1.9	-	-
138	Oil and gas field services:													
	Establishments.....number..	53	53	-	-	-	-	-	-	-	-	-	53	-
	Employees.....1,000..	.7	.7	-	-	-	-	-	-	-	-	-	.7	-
	Value added in mining.mil.dol..	11.5	11.5	-	-	-	-	-	-	-	-	-	11.5	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments											Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Utah--Continued													
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	66	65	20	3	16	1	34	5	28	1	-	11	1
	Employees.....1,000..	1.4	(D)	.3	(D)	(Z)	(D)	1.0	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining.mil.dol..	24.9	(D)	3.1	(D)	.5	(D)	13.5	(D)	(D)	(D)	-	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	5	5	5	-	5	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	7	7	-	-	-	-	7	1	6	-	-	-	-
	Employees.....1,000..	.1	.1	-	-	-	-	.1	(D)	(D)	-	-	-	-
	Value added in mining.mil.dol..	1.8	1.8	-	-	-	-	1.8	(D)	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	20	20	3	-	3	-	12	-	12	-	-	5	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	-	.1	-	.1	-	-	(D)	-
	Value added in mining.mil.dol..	1.1	1.1	(D)	-	(D)	-	.8	-	.8	-	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	10	10	8	-	7	1	2	-	2	-	-	-	-
	Employees.....1,000..	.1	.1	(D)	-	(D)	(D)	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	1.6	1.6	(D)	-	(D)	(D)	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	10	9	4	3	1	-	4	1	2	1	-	1	1
	Employees.....1,000..	.7	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining.mil.dol..	16.5	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	.1	.1	-	-	-	-	-	-	-	-	-	.1	-
	Value added in mining.mil.dol..	.8	.8	-	-	-	-	-	-	-	-	-	.8	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	9	9	-	-	-	-	9	3	6	-	-	-	-
	Employees.....1,000..	.2	.2	-	-	-	-	.2	(D)	(D)	-	-	-	-
	Value added in mining.mil.dol..	3.1	3.1	-	-	-	-	3.1	(D)	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963
Establishments, total.....number..	308	384
With 0 to 19 employees.....do....	242	313
With 20 to 99 employees.....do....	47	55
With 100 or more employees.....do....	19	16
All employees (average for year).....1,000..	8.5	10.7
Payroll (all employees), total for year.....million dollars..	65.7	68.8
Production, development, and exploration workers:		
Average for the year.....1,000..	6.7	9.1
March.....do....	8.5	(NA)
May.....do....	8.7	(NA)
August.....do....	4.9	(NA)
November.....do....	4.7	(NA)
Man-hours.....millions..	13.4	17.3
Wages.....million dollars..	48.3	55.6
Supplemental labor cost not included in payroll.....do..	9.8	(NA)
Legally required expenditures, including Social Security contributions.....do..	3.8	(NA)
Payments for voluntary programs.....do..	6.0	(NA)
Cost of supplies, total.....million dollars..	178.1	209.3
Supplies used, minerals received for preparation, and purchased machinery.....do....	148.8	(NA)
Cost of resales.....do....	.1	(NA)
Purchased fuels consumed.....do....	2.5	(NA)
Electric energy:		
Quantity purchased.....million kw.-hrs..	885.9	(NA)
Cost.....million dollars..	6.8	(NA)
Generated less sold.....million kw.-hrs..	9.6	(NA)
Contract work.....million dollars..	20.0	35.1
Value of shipments and receipts (including resales), total.....do....	357.5	423.8
Value of resales.....do....	.1	(NA)
Value added in mining.....do....	233.7	267.8
Capital expenditures (except land and mineral rights), total.....do....	54.3	53.3
Mineral development and exploration.....do....	24.3	23.2
New structures and additions.....do....	7.1	} 30.1
New machinery and equipment.....do....	22.1	
Used plant and equipment.....do....	.8	
Mineral development and exploration expenditures, total.....do....	34.8	(NA)
Capitalized.....do....	24.3	23.2
Expensed.....do....	10.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Utah, total	308	66	8.5	65.7	6.7	13.4	48.3	233.7	178.1	357.5	54.3	10.6	267.8
	COUNTIES[2]													
	Carbon county, total	23	11	1.0	7.1	.8	1.4	5.8	17.2	25.5	39.6	3.1	1.3	20.2
12	Bituminous coal and lignite mining	14	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.3	18.8
121	Bituminous coal and lignite mining	14	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Duchesne county,	20	2	.1	.6	.1	.2	.6	2.4	1.1	2.4	1.1	.1	1.0
	Emery county, total	26	1	.3	2.3	.3	.5	1.7	8.3	1.8	9.2	.9	.4	5.4
12	Bituminous coal and lignite mining	7	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.7
121	Bituminous coal and lignite mining	7	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.7
	Grand county, total	36	3	.7	4.9	.4	1.1	3.7	21.6	14.5	28.1	8.0	.4	10.0
10	Metal mining	12	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	9	2	.2	1.2	.1	.2	.7	14.0	6.2	19.7	.5	(D)	(D)
14	Nonmetallic minerals, except fuels	3	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Iron county, total	8	2	.2	1.7	.2	.4	1.3	11.9	2.7	14.5	.2	.3	11.4
10	Metal mining	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	11.1
101	Iron ores	5	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Juab county, total	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	1.9
10	Metal mining	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.7
103	Lead and zinc ores	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Rich county, total	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Salt Lake county, total	75	9	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	34	7	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
102	Copper ores	6	3	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	14	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	San Juan county, total	66	9	.5	3.5	.4	.8	2.9	47.5	13.9	57.4	4.0	1.0	106.5
10	Metal mining	25	2	.2	1.2	.1	.3	.9	3.7	2.5	6.0	.3	(D)	(D)
13	Oil and gas extraction	41	7	.3	2.3	.3	.6	1.9	43.8	11.4	51.4	3.8	.4	72.0
131	Crude petroleum and natural gas	20	4	.2	1.2	.1	.2	.9	39.7	7.6	43.9	3.4	.1	67.0
138	Oil and gas field services	20	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Summit county, total	13	2	.2	1.3	.2	.4	1.2	7.5	3.7	2.8	8.3	(D)	(D)
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Utah--Continued													
	COUNTIES[2]--Continued													
	Tooele county	7	3	.1	1.1	.1	.2	.7	1.6	1.0	2.2	.5	(D)	(D)
	Uintah county, total	44	12	.7	5.2	.6	1.3	4.3	26.7	17.0	37.4	6.3	.7	26.9
13	Oil and gas extraction	39	8	.4	3.0	.3	.7	2.4	22.2	13.8	30.5	5.6	.4	22.1
131	Crude petroleum and natural gas	22	1	.1	1.0	.1	.2	.6	17.5	9.8	22.7	4.6	.1	17.9
138	Oil and gas field services	16	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	5	4	.3	2.3	.3	.5	1.8	4.5	3.2	6.9	.7	(D)	(D)
149	Miscellaneous nonmetallic minerals	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Utah county, total	18	2	.1	.7	.1	.2	.6	2.0	.6	2.5	.1	.2	2.8
14	Nonmetallic minerals, except fuels	9	2	.1	.6	.1	.2	.5	1.7	.4	2.1	.1	.2	2.4
	Wasatch county, total	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Utah, total	308	99	-	31	112	66
0 to 4 employees	173	60	-	9	67	37
5 to 9 employees	40	14	-	4	11	11
10 to 19 employees	29	5	-	5	13	6
20 to 49 employees	34	5	-	6	18	5
50 to 99 employees	13	4	-	3	3	3
100 to 249 employees	14	8	-	3	-	3
250 to 499 employees	2	-	-	1	-	1
500 to 999 employees	2	2	-	-	-	-
1,000 to 2,499 employees	1	1	-	-	-	-
Beaver county, total	6	3	-	-	1	2
0 to 19 employees	4	2	-	-	-	2
20 to 99 employees	2	1	-	-	1	-
Box Elder county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Cache county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Carbon county, total	23	-	-	14	9	-
0 to 19 employees	12	-	-	4	8	-
20 to 99 employees	9	-	-	8	1	-
100 to 249 employees	1	-	-	1	-	-
250 employees and over	1	-	-	1	-	-
Daggett county, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-
Davis county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Duchesne county, total	20	-	-	-	19	1
0 to 19 employees	18	-	-	-	18	-
20 to 99 employees	2	-	-	-	1	1
Emery county, total	26	7	-	7	12	-
0 to 19 employees	25	7	-	6	12	-
100 to 249 employees	1	-	-	1	-	-
Garfield county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Grand county, total	36	12	-	-	21	3
0 to 19 employees	33	10	-	-	21	2
20 to 99 employees	1	1	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
250 employees and over	1	-	-	-	-	1
Iron county, total	8	5	-	1	-	2
0 to 19 employees	6	3	-	1	-	2
20 to 99 employees	1	1	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Juab county, total	8	6	-	1	-	1
0 to 19 employees	6	5	-	1	-	-
100 to 249 employees	2	1	-	-	-	1
Kane county, total	5	-	-	2	3	-
0 to 19 employees	5	-	-	2	3	-
Millard county, total	6	-	-	1	2	3
0 to 19 employees	6	-	-	1	2	3
Morgan county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Piute county, total	3	2	-	1	-	-
0 to 19 employees	3	2	-	1	-	-
Rich county, total	2	-	-	1	-	1
0 to 19 employees	1	-	-	1	-	-
100 to 249 employees	1	-	-	-	-	1
Salt Lake county, total	75	34	-	4	17	20
0 to 19 employees	66	27	-	2	17	20
20 to 99 employees	3	2	-	1	-	-
100 to 249 employees	4	3	-	1	-	-
250 employees and over	2	2	-	-	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Utah--Continued						
San Juan county, total	66	25	-	-	41	-
0 to 19 employees	57	23	-	-	34	-
20 to 99 employees	9	2	-	-	7	-
Sanpete county, total	6	-	-	1	4	1
0 to 19 employees	6	-	-	1	4	1
Sevier county, total	8	1	-	3	-	4
0 to 19 employees	8	1	-	3	-	4
Summit county, total	13	1	-	1	9	2
0 to 19 employees	11	-	-	1	8	2
20 to 99 employees	1	-	-	-	1	-
100 to 249 employees	1	1	-	-	-	-
Tooele county, total	7	2	-	1	-	4
0 to 19 employees	4	1	-	-	-	3
20 to 99 employees	3	1	-	1	-	1
Uintah county, total	44	-	-	-	39	5
0 to 19 employees	32	-	-	-	31	1
20 to 99 employees	11	-	-	-	8	3
100 to 249 employees	1	-	-	-	-	1
Utah county, total	18	3	-	1	5	9
0 to 19 employees	16	3	-	1	5	7
20 to 99 employees	2	-	-	-	-	2
Wasatch county, total	2	1	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
100 to 249 employees	1	1	-	-	-	-
Washington county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Wayne county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Weber county, total	6	-	-	3	2	1
0 to 19 employees	5	-	-	3	2	-
20 to 99 employees	1	-	-	-	-	1

Standard Notes: -Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

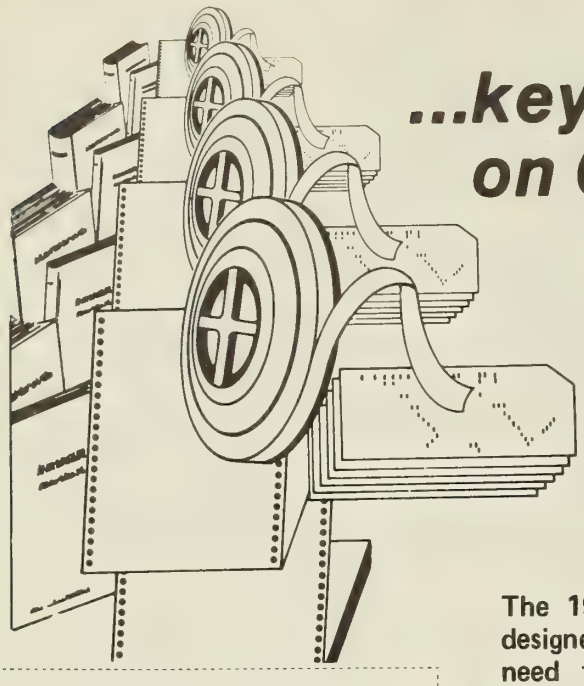
The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census



...key resources on Census '70

1970 Census Users' Guide Part 1 and Part 2

The 1970 Census Users' Guide is a two-part publication designed to furnish most of the information data users will need for effective access and use of 1970 census data products.

Part 1 of the **Guide** (standard, paper-bound publication) includes the text and three appendixes. The text covers such subjects as the collection and processing of 1970 data, data delivery media (computer tapes, microfilm, and printed materials), maps and information on how to obtain census materials. The appendixes are:

1970 Census Users' Dictionary - defines concepts associated with population and housing tabulations and geographic areas relevant to the collection and publication of data.

Comparison of Printed Reports and Summary Tapes summarizes and compares the contents of the reports and tapes.

Glossary - defines many terms used in connection with collecting, processing, and publishing census data, and lists many abbreviations relevant to the census.

Part 2 of the **Guide** (prepunched for 3-ring binder) contains appendixes specifically related to the use of census summary tapes and the Address Coding Guide.

Technical Conventions and Character Set - present information on the physical characteristics, format, and languages associated with tapes released by the Bureau.

1st-4th Count Technical Documentation - describes the arrangement of geographic codes and census data on the first four series of summary tapes.

Address Coding Guide Technical Documentation - furnishes information on the format and content of ACG's.

Many data users will find both Parts 1 and 2 of great value. Part 1, with its comprehensive coverage of the decennial census program, data products, and related services, is an important instructional and reference tool. Part 2, concerned exclusively with computer tape products, is designed particularly for those who plan to obtain tapes or who want complete information on the data content of the summary tapes.

ORDER FORM

Please indicate number of copies

☐ **PARTS 1 and 2** of the 1970 Census Users' Guide @ $4.00 for both

☐ **PART 1** only of the 1970 Census Users' Guide @ $1.25 per copy
C3.6/2:C33/4/970/PT.1

☐ **PART 2** only of the 1970 Census Users' Guide @ $2.75 per copy
C3.6/2:C33/4/970/PT.2

MAIL ORDER FORM

WITH PAYMENT TO

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402
or any
U.S. Department of Commerce
field office

Make check or money order payable to:
Superintendent of Documents

TOTAL AMOUNT $

Name

Address

City State

Zip code

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-862

1967 CENSUS OF Mineral Industries



MIC67(2)-44

AREA STATISTICS

VERMONT

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	5
5	General Statistics by County and Industry Groups: 1967 and 1963	6
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	7
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



VERMONT

Incorporated places of 25,000-100,000 ●

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]36	12	.9	5.1	.7	1.6	4.1	11.7
1963	[1]44	10	.8	4.1	.7	1.6	3.4	8.8
1958	41	7	.8	3.2	.7	1.4	2.5	6.8
1954	42	11	1.3	4.9	1.2	2.6	4.2	10.6
Including operations in manufactures:								
1967	51	19	2.0	10.4	1.7	3.6	8.9	20.1
1963	61	14	2.1	9.4	1.9	4.0	8.2	16.4
1958	67	16	2.6	10.0	2.2	4.4	7.9	15.8
1954[2]	62	16	2.1	7.4	1.9	4.0	6.5	15.5
1939[3]	[4]77	(NA)	1.7	2.0	1.6	3.1	1.7	(NA)
1929[5]	105	(NA)	3.4	4.9	3.2	(NA)	4.2	8.9
1919[6]	93	(NA)	3.2	3.5	2.9	(NA)	3.0	6.8
1909[6]	141	(NA)	8.6	4.8	8.2	(NA)	4.5	6.8
1902[7]	[4]192	(NA)	5.8	3.5	[8]5.4	(NA)	3.1	4.8

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]3.6	([10])	.3	([10])	14.8	.9	(NA)
1963	[11]2.7	([11])	.2	.5	11.1	1.0	.1
1958	2.8	-	.2	.4	9.6	.7	.2
1954	[11]3.5	(Z)	.4	.6	14.4	.7	.2
Including operations in manufactures:							
1967	[12]7.4	([12])	([12])	([12])	26.3	1.2	(NA)
1963	[13]6.4	.3	[13].2	[15]1.0	22.6	[15]1.6	(NA)
1958	[14]5.4	([11])	[13].3	[15].9	21.2	[15]1.2	[15].3
1954[2]	[13]4.4	(Z)	[13].6	[15].7	20.4	[15].8	[15].2
1939[3]	1.2	(NA)	Z	(NA)	6.2	(NA)	.1
1929[5]	1.3	(NA)	Z	.3	10.3	(NA)	.2
1919[6]	1.7	-	.1	(NA)	8.6	(NA)	[16].2
1909[6]	1.3	-	.1	(NA)	8.2	(NA)	(NA)
1902[7]	1.1	(NA)	-	(NA)	5.9	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time, data for single unit establishments without paid employees were excluded from the census. In 1963, there were 4 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments. Except for number of establishments, excludes data for one stone quarry operated as part of a lime plant and one clay pit operated as part of a clay products plant.

[3]Except for value of shipments, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing stone at such operations was $895 thousand.

[4]Represents number of mines and quarries.

[5]Excludes data for common clay and shale operations, if any. No such operations were reported for 1939.

[6]Excludes data for sand and gravel operations and stone quarries operated as parts of lime plants. For 1929, there was one sand and gravel establishment and 2 such stone quarries. See also footnote 5.

[7]Excludes data for sand and gravel and common clay and shale operations. Includes data for lime plants producing lime valued at $219 thousand.

[8]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For all other years, represents net production and excludes this duplication.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Cost of minerals received for preparation is included with cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Includes the cost of minerals received for preparation. See also footnote 13.

[15]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[16]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 15 percent of the total kw.-hrs. equivalent of of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	36	12	.9	5.1	.7	1.6	4.1	11.7	3.9	14.8	.9	.8	8.8
14	Nonmetallic minerals, except fuels	35	12	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.8	8.8
141	Dimension stone	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1413	Dimension granite	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
142	Crushed and broken stone	9	3	.2	1.1	.2	.3	.8	2.3	.9	3.0	.2	(NA)	(NA)
1422	Crushed and broken limestone	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1423	Crushed and broken granite	1	1	BB	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
144	Sand and gravel	11	1	.1	.5	.1	.2	.4	1.0	.5	1.4	.1	.1	.4
1442	Construction sand and gravel	11	1	.1	.5	.1	.2	.4	1.0	.5	1.4	.1	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	8	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1496	Talc, soapstone, and pyrophyllite	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1499	Nonmetallic minerals, n.e.c.	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees. n.e.c. Not elsewhere classified.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc.	Value of shipments and receipts[1]	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	15	7	1.1	5.3	1.0	2.0	4.8	8.4	3.5	11.5	[2]0.3	1.2	7.6
1411	Dimension stone (Dimension stone, n.e.c. subindustry)	12	7	1.0	5.2	0.9	2.0	4.7	7.7	3.4	10.8	0.3	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

[2] Represents capital expenditures for the dimension stone industry only.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Vermont:													
	Establishments.....number..	36	36	8	-	8	-	18	3	15	-	-	10	-
	Employees.....1,000..	.9	.9	(D)	-	(D)	-	.5	(D)	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	11.7	11.7	(D)	-	(D)	-	7.1	(D)	(D)	-	-	(D)	-
10	Metal mining:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	35	35	7	-	7	-	18	3	15	-	-	10	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.5	(D)	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	7.1	(D)	(D)	-	-	(D)	-
141	Dimension stone:													
	Establishments.....number..	6	6	5	-	5	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	9	9	1	-	1	-	8	-	8	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.1	-	.1	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	1.1	-	1.1	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	11	11	-	-	-	-	2	-	2	-	-	9	-
	Employees.....1,000..	.1	.1	-	-	-	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	1.0	1.0	-	-	-	-	(D)	-	(D)	-	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	8	8	-	-	-	-	7	3	4	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	36	44	Cost of supplies, total.....million dollars..	3.9	3.3
With 0 to 19 employees.....do....	24	34	Supplies used, minerals received for preparation, and purchased machinery.....do....	2.6	(NA)
With 20 to 99 employees.....do....	11	8	Cost of resales.....do....	(Z)	(NA)
With 100 or more employees.....do....	1	2	Purchased fuels consumed.....do....	.4	(NA)
All employees (average for year).....1,000..	.9	.8	Electric energy:		
Payroll (all employees), total for year.....million dollars..	5.1	4.1	Quantity purchased.....million kw.-hrs..	49.8	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	.6	(NA)
Average for the year.....1,000..	.7	.7	Generated less sold.....million kw.-hrs..	(Z)	(NA)
March.....do....	.7	(NA)	Contract work.....million dollars..	.3	.2
May.....do....	.8	(NA)	Value of shipments and receipts (including resales), total.....do....	14.8	11.1
August.....do....	.8	(NA)	Value of resales.....do....	(Z)	(NA)
November.....do....	.7	(NA)	Value added in mining.....do....	11.7	8.8
Man-hours.....millions..	1.6	1.6	Capital expenditures (except land and mineral rights), total.....do....	.9	1.0
Wages.....million dollars..	4.1	3.4	Mineral development and exploration.....do....	.1	.4
Supplemental labor cost not included in payroll.....do..	.7	(NA)	New structures and additions.....do....	.1	.7
			New machinery and equipment.....do....	.6	
			Used plant and equipment.....do....	(Z)	
Legally required expenditures, including Social Security contributions.....do..	.4	(NA)	Mineral development and exploration expenditures, total.....do....	.6	(NA)
Payments for voluntary programs.....do..	.4	(NA)	Capitalized.....do....	.1	.4
			Expensed.....do....	.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Vermont, total	36	12	.9	5.1	.7	1.6	4.1	11.7	3.9	14.8	.9	.8	8.8
	COUNTIES[2]													
	Lamoille County, total	4	3	(EE)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuel	4	3	(EE)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	3	3	(EE)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Washington County, total	8	4	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
14	Nonmetallic minerals, except fuel	8	4	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
141	Dimension stone	4	3	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
	Windsor County, total	5	1	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.4
14	Nonmetallic minerals, except fuel	5	1	(CC)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(Z)	.4

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for their own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represent the number of reports received, while county establishment counts represent the number of reports that indicated operations in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Vermont, total	36	1	-	-	-	35
0 to 4 employees	14	1	-	-	-	13
5 to 9 employees	6	-	-	-	-	6
10 to 19 employees	4	-	-	-	-	4
20 to 49 employees	6	-	-	-	-	6
50 to 99 employees	5	-	-	-	-	5
100 to 249 employees	1	-	-	-	-	1
Addison county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Bennington county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Caledonia county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Chittenden county, total	8	1	-	-	-	7
0 to 19 employees	6	1	-	-	-	5
20 to 99 employees	2	-	-	-	-	2
Franklin county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Lamoille county, total	4	-	-	-	-	4
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Orange county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Rutland county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Washington county, total	8	-	-	-	-	8
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	4	-	-	-	-	4
Windsor county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

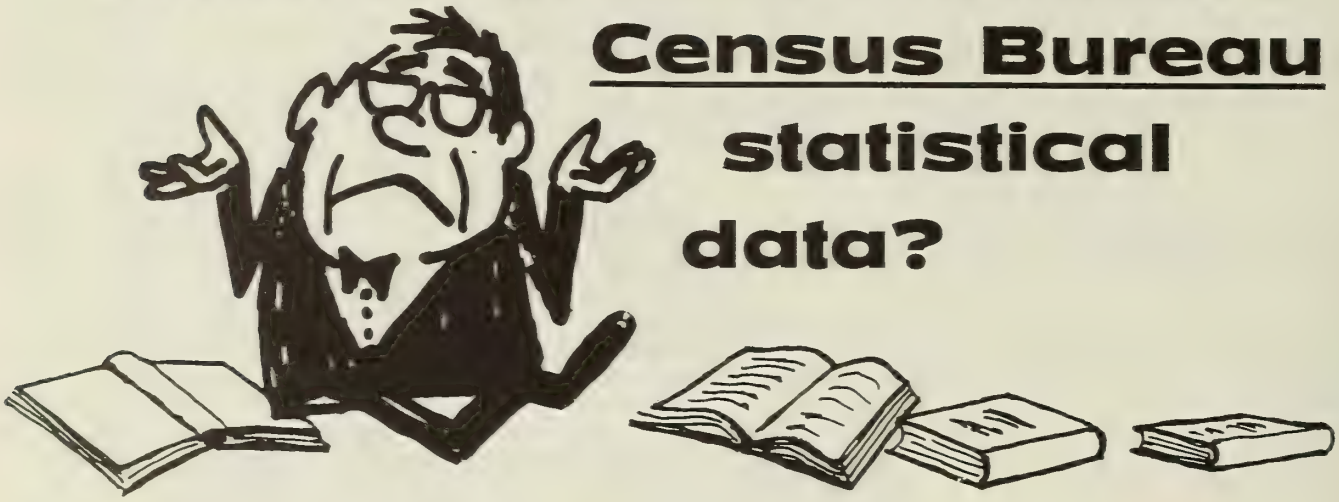
All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

Want help . . . in finding Census Bureau statistical data?



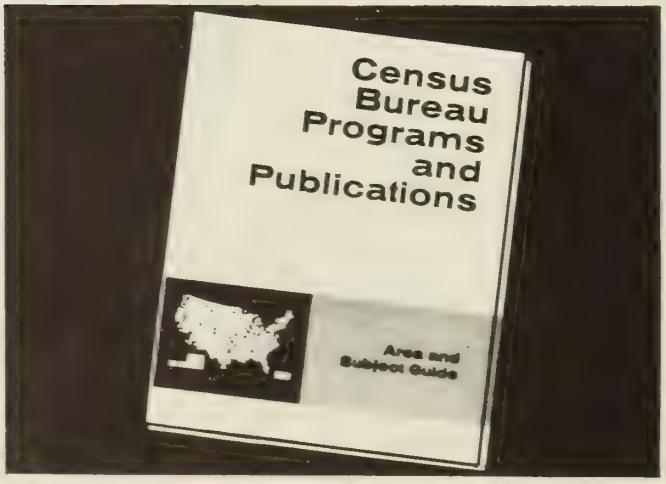
To help users find the statistical data they need, the Census Bureau has published a guide to its statistical programs and reports of the 1960's.

THIS GUIDE TO CENSUS BUREAU DATA . . .

outlines programs and activities of the Census Bureau / **defines** geographic areas covered / **describes** the latest statistical information available on:

agriculture
construction
distribution
  wholesale trade
  retail trade
geographic reports and maps
governments
housing
manufacturing
mineral industries
population
services
transportation
congressional district data
county and city data
economic statistics
  Long Term Economic Growth
  Business Conditions Digest
  County Business Patterns
historical statistics

this publication guide also includes descriptions of: catalogs, directories, and other guides to statistics; recent methodological and evaluation studies; and statistical compendia.



Mail order form with payment to:
Superintendent of Documents
U.S. Government Printing Office
Washington, D.C., 20402
or any U.S. Dept. of Commerce Field Office

Enclosed is $_____(check, money order, Supt. Docs. coupons) or charge Deposit Account No. _____

Please send me _____ copy(ies) of **Census Bureau Programs and Publications—Area and Subject Guide,** at $1.50 each.

Name_____

Street Address_____

City, State, ZIP_____

Make check or money order payable to Superintendent of Documents

☆ U. S. GOVERNMENT PRINTING OFFICE : 1971 431-995/1384

1967 CENSUS OF Mineral Industries



MIC67(2)-45

AREA STATISTICS

VIRGINIA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

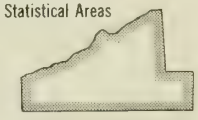
Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



VIRGINIA

Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]737	170	13.0	76.5	11.6	21.8	63.9	178.5
1963	[1]944	201	15.6	66.9	14.0	25.5	57.9	144.8
1958	1,033	196	18.0	68.4	15.7	26.4	57.3	135.5
1954	755	153	16.1	52.8	14.4	25.0	45.0	89.1
Including operations in manufactures:								
1967	762	179	13.6	79.1	12.2	23.0	66.4	186.8
1963	985	210	16.2	69.4	14.5	26.7	60.2	151.8
1958	1,066	204	18.6	70.4	16.2	27.5	59.2	142.6
1954[2]	788	164	16.9	55.1	15.1	26.5	47.2	96.0
1939[3]	[4]257	(NA)	20.1	20.9	19.0	29.0	18.9	28.6
1929[5]	193	(NA)	16.1	16.7	15.3	(NA)	14.9	23.9
1919[6]	206	(NA)	15.6	17.9	14.7	(NA)	16.2	23.0
1909[6]	195	(NA)	16.0	5.9	15.4	(NA)	5.3	7.0
1902[7]	[4]194	(NA)	9.5	3.9	[8]8.9	(NA)	3.4	5.4

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]103.7	([10])	10.7	([10])	262.6	30.4	(NA)
1963	42.2	32.8	8.3	11.0	224.1	15.0	3.6
1958	41.1	29.2	12.1	17.8	199.2	36.4	1.6
1954	36.8	[12]10.0	4.5	7.4	137.5	10.3	1.4
Including operations in manufactures:							
1967	[11](D)	([11])	([11])	([11])	272.6	(D)	(NA)
1963	[13]44.1	32.8	[13]8.3	[14]11.0	232.8	[14]15.2	[14]3.6
1958	[13]42.2	29.2	[13]2.1	[14]17.8	207.4	[14]36.4	[14]1.6
1954[2]	[13]38.0	[12]10.0	[13]4.5	[14]7.4	145.6	[14]10.3	[14]1.4
1939[3]	5.9	(NA)	(Z)	(NA)	34.6	(NA)	.7
1929[5]	5.6	(NA)	(Z)	1.1	29.5	(NA)	.8
1919[6]	6.1	-	.3	(NA)	29.4	(NA)	[15]1.6
1909[6]	1.7	-	.1	(NA)	8.8	(NA)	(NA)
1902[7]	.9	(NA)	(Z)	(NA)	6.3	(NA)	(NA)

Note: See appendix A for an explanation of terms used. For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 41 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments, if any.

[3]Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing slate at such operations was $186 thousand; this value has been included in the value of shipments and value added in mining. The comparable values for limestone, granite, marble, trap rock, and sandstone are not available.

[4]Represents number of mines and quarries and, for mining services industries, number of operating companies.

[5]Excludes data for common clay and shale mining operations. In 1939, there were 17 such mines with products valued at $160 thousand.

[6]Excludes data for sand and gravel mining operations and stone quarries operated as parts of cement and lime plants. In 1929, there were 8 such sand and gravel mining operations, with products valued at $679 thousand, and 12 such stone quarries, with products valued at $1,022 thousand. See also footnote 5.

[7]Excludes data for sand and gravel and common clay and shale mining operations, and stone quarries operated as parts of cement plants. Includes data for lime plants producing lime valued at $242 thousand.

[8]Figures for average employment were reduced to a 300-day basis for establishments which operated for a shorter period.

[9]For crushed and broken stone, sand and gravel, clay, and gypsum mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplications due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[10]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies for resale, and purchased fuels and electric energy.

[12]Excludes the cost of natural gas processed at natural gas liquids plants.

[13]For crushed and broken stone, sand and gravel, clay, gypsum, and, for 1963, dimension stone mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, clay, gypsum, and for 1963 dimension stone mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 12 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	737	170	13.0	76.5	11.6	21.8	63.9	178.5	114.4	262.6	30.4	15.6	144.8
10	Metal mining	6	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	4.4
12	Bituminous coal and lignite mining	577	99	9.5	57.8	8.5	15.2	49.2	131.6	89.3	197.5	23.4	11.5	98.1
121	Bituminous coal and lignite mining	577	99	9.5	57.8	8.5	15.2	49.2	131.6	89.3	197.5	23.4	11.5	98.1
1211	Bituminous coal	570	97	9.4	57.1	8.4	15.1	48.5	128.7	88.1	194.0	22.9	11.3	95.6
1213	Bituminous and lignite mining services, n.e.c.	7	2	.1	.7	.1	.1	.6	2.9	1.1	3.5	.5	.2	2.5
14	Nonmetallic minerals, except fuels	143	69	3.4	17.9	2.9	6.4	14.1	44.3	23.0	60.6	6.8	3.7	41.5
142	Crushed and broken stone	86	50	2.1	11.0	1.8	3.9	8.5	28.3	16.3	39.6	5.0	2.3	28.8
1422	Crushed and broken limestone	47	28	1.2	5.6	1.0	2.1	4.4	11.8	7.2	16.9	2.0	1.5	14.7
1423	Crushed and broken granite	22	12	.5	2.9	.5	1.0	2.4	10.7	5.3	14.1	1.8	(NA)	(NA)
1429	Crushed and broken stone, n.e.c.	17	10	.4	2.5	.3	.8	1.7	5.8	3.9	8.6	1.2	.4	6.9
144	Sand and gravel	40	11	.7	4.2	.7	1.5	3.4	8.6	4.6	11.6	1.5	.8	8.4
1442	Construction sand and gravel	36	9	.7	3.7	.6	1.3	3.0	8.3	4.2	11.1	1.4	(NA)	(NA)
1443	Glass sand	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	7	5	.2	1.2	.2	.4	.8	3.8	1.3	4.9	.2	.2	2.1
1459	Clay and related minerals, n.e.c.	6	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
149	Miscellaneous nonmetallic minerals	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1496	Talc, soapstone, and pyrophyllite	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	25	9	0.6	2.6	0.6	1.2	2.5	8.3	(D)	10.0	(D)	0.6	6.9
142	Crushed and broken stone (limestone)	8	5	0.2	1.0	0.2	0.4	1.0	3.8	1.0	4.8	(NA)	(NA)	(NA)
145	Clay and related minerals n.e.c.	12	-	(Z)	0.1	(Z)	0.1	0.1	1.0	0.2	1.2	(NA)	(NA)	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Virginia:													
	Establishments.....number..	737	730	498	462	18	18	172	48	109	15	19	41	7
	Employees.....1,000..	13.0	13.0	4.4	4.1	.2	.2	7.7	4.1	3.0	.6	.3	.6	.1
	Value added in mining..mil.dol..	178.5	178.5	43.5	37.8	2.6	3.2	124.6	72.4	42.0	10.2	5.5	5.0	(Z)
10	Metal mining:													
	Establishments.....number..	6	6	2	1	1	-	1	-	1	-	1	2	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-
1021	Copper ores:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
104	Gold and silver ores:													
	Establishments.....number..	1	1	1	1	-	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	(D)	-	-	-	-	-	-	-	-	-
106	Ferroalloy ores, except vanadium:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	1	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	-
1081	Metal mining services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
12	Bituminous coal and lignite mining:													
	Establishments.....number..	577	573	480	461	5	14	60	46	3	11	16	17	4
	Employees.....1,000..	9.5	(D)	4.3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	131.6	(D)	41.6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining:													
	Establishments.....number..	577	573	480	461	5	14	60	46	3	11	16	17	4
	Employees.....1,000..	9.5	(D)	4.3	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	131.6	(D)	41.6	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction:													
	Establishments.....number..	11	10	4	-	-	4	-	-	-	-	-	6	1
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(Z)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	.1	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	8	7	4	-	-	4	-	-	-	-	-	3	1
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	143	141	12	-	12	-	111	2	105	4	2	16	2
	Employees.....1,000..	3.4	(D)	.1	-	.1	-	3.1	(D)	2.9	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	44.3	(D)	.9	-	.9	-	41.4	(D)	39.5	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	5	5	4	-	4	-	1	-	1	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	.4	.4	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	86	86	1	-	1	-	83	2	80	1	1	1	-
	Employees.....1,000..	2.1	2.1	(D)	-	(D)	-	(D)	(D)	1.9	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	28.3	28.3	(D)	-	(D)	-	(D)	(D)	26.7	(D)	(D)	(D)	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Virginia--Continued													
14	Nonmetallic minerals, except fuels--Continued													
144	Sand and gravel:													
	Establishments.....number..	40	38	5	-	5	-	18	-	16	2	1	14	2
	Employees.....1,000..	.7	(D)	(Z)	-	(Z)	-	(D)	-	.5	(D)	(D)	.1	(D)
	Value added in mining..mil.dol..	8.6	(D)	.2	-	.2	-	(D)	-	6.5	(D)	(D)	1.7	(D)
145	Clay and related minerals:													
	Establishments.....number..	7	7	2	-	2	-	5	-	5	-	-	-	-
	Employees.....1,000..	.2	.2	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	3.8	3.8	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	1	1	-	-	-	-	1	-	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	3	3	-	-	-	-	3	-	2	1	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	-	(D)	(D)	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	737	944	Cost of supplies, total.....million dollars..	114.4	94.3
With 0 to 19 employees.....do....	567	743	Supplies used, minerals received for preparation, and purchased machinery.....do....	91.9	(NA)
With 20 to 99 employees.....do....	151	188	Cost of resales.....do....	2.4	(NA)
With 100 or more employees.....do....	19	13	Purchased fuels consumed.....do....	3.7	(NA)
All employees (average for year).....1,000..	13.0	15.6	Electric energy:		
Payroll (all employees), total for year.....million dollars..	76.5	66.9	Quantity purchased.....million kw.-hrs..	466.9	(NA)
			Cost.....million dollars..	5.7	(NA)
			Generated less sold.....million kw.-hrs..	.8	(NA)
			Contract work.....million dollars..	10.7	8.3
Production, development, and exploration workers:					
Average for the year.....1,000..	11.6	14.0	Value of shipments and receipts (including resales), total.....do....	262.6	224.1
March.....do....	11.4	(NA)	Value of resales.....do....	2.6	(NA)
May.....do....	11.6	(NA)			
August.....do....	11.8	(NA)			
November.....do....	11.6	(NA)	Value added in mining.....do....	178.5	144.8
Man-hours.....millions..	21.8	25.5	Capital expenditures (except land and mineral rights), total.....do....	30.4	15.0
Wages.....million dollars..	63.9	57.9	Mineral development and exploration.....do....	3.0	.5
			New structures and additions.....do....	3.7	
Supplemental labor cost not included in payroll.....do..	9.1	(NA)	New machinery and equipment.....do....	22.1	14.5
			Used plant and equipment.....do....	1.7	
			Mineral development and exploration expenditures, total.....do....	3.5	(NA)
Legally required expenditures, including Social Security contributions.....do..	4.4	(NA)	Capitalized.....do....	3.0	.5
Payments for voluntary programs.....do..	4.8	(NA)	Expensed.....do....	.5	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Virginia, total	737	170	13.0	76.5	11.6	21.8	63.9	178.5	114.4	262.6	30.4	15.6	178.5
	COUNTIES[2]													
	Botetourt county, total	6	4	.2	1.2	.2	.4	.8	2.1	1.2	3.2	.1	.3	2.5
14	Nonmetallic minerals, except fuels	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.5
142	Crushed and broken stone	4	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.5
	Buchanan county, total	280	51	4.2	22.7	3.9	6.7	20.3	53.8	43.2	84.8	12.2	5.6	41.6
12	Bituminous coal and lignite mining	278	51	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	278	51	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Buckingham county, total	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.2
14	Nonmetallic minerals, except fuels	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.2
	Chesterfield county, total	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Dickenson county, total	63	13	1.9	13.1	1.7	3.2	11.4	30.1	14.5	42.3	2.4	2.2	25.5
12	Bituminous coal and lignite mining	62	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	62	13	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fairfax county, total	8	4	.2	1.3	.2	.4	1.2	3.8	1.8	4.6	1.0	.1	2.8
14	Nonmetallic minerals, except fuels	8	4	.2	1.3	.2	.4	1.2	3.8	1.8	4.6	1.0	.1	2.8
144	Sand and gravel	4	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Frederick county, total	5	4	.2	1.0	.2	.4	.8	2.0	1.3	3.1	.3	.2	2.0
14	Nonmetallic minerals, except fuels	5	4	.2	1.0	.2	.4	.8	2.0	1.3	3.1	.3	.2	2.0
142	Crushed and broken stone	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Lee county, total	31	5	.2	.8	.2	.3	.7	2.2	1.8	3.7	.3	.5	2.5
12	Bituminous coal and lignite mining	28	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	28	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Loudoun county, total	5	3	.1	.8	.1	.3	.5	2.0	1.3	3.0	.2	.1	2.7
14	Nonmetallic minerals, except fuels	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.7
142	Crushed and broken stone	5	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	2.7
	Nelson county, total	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
149	Miscellaneous nonmetallic minerals	1	1	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Richmond city, total	6	3	.1	.6	.1	.2	.5	2.6	1.1	3.1	.6	.1	1.4
14	Nonmetallic minerals, except fuels	6	3	.1	.6	.1	.2	.5	2.6	1.1	3.1	.6	.1	1.4
	Russell county, total	20	8	.9	6.2	.6	1.1	4.1	10.0	5.2	13.1	2.1	.9	6.8
12	Bituminous coal and lignite mining	18	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	18	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Virginia--Continued													
	COUNTIES--Continued													
	Tazewell county, total.....	55	7	.6	2.6	.5	1.0	2.4	6.1	4.7	9.9	.9	.9	5.1
12	Bituminous coal and lignite mining.....	50	4	.4	1.8	.4	.7	1.6	4.1	3.2	6.9	.4	(D)	(D)
121	Bituminous coal and lignite mining.....	50	4	.4	1.8	.4	.7	1.6	4.1	3.2	6.9	.4	(D)	(D)
14	Nonmetallic minerals, except fuels.....	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone.....	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washington county, total.....	7	3	.2	1.1	.1	.1	.2	1.0	.5	1.4	.1	(D)	(D)
12	Bituminous coal and lignite mining.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wise county, total.....	110	18	1.7	11.5	1.6	3.0	10.4	30.4	20.2	45.0	5.6	2.3	19.7
12	Bituminous coal and lignite mining.....	107	17	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	107	17	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Virginia, total	737	6	-	577	11	143
0 to 4 employees	269	1	-	227	9	32
5 to 9 employees	150	-	-	134	1	15
10 to 19 employees	148	3	-	117	1	27
20 to 49 employees	123	2	-	64	-	57
50 to 99 employees	28	-	-	19	-	9
100 to 249 employees	14	-	-	12	-	2
250 to 499 employees	4	-	-	3	-	1
500 to 999 employees	1	-	-	1	-	-
Accomack county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Albemarle county, total	5	1	-	-	-	4
0 to 19 employees	3	1	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Alexandria, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Amherst county, total	3	1	-	-	1	1
0 to 19 employees	2	-	-	-	1	1
20 to 99 employees	1	1	-	-	-	-
Augusta county, total	4	-	-	1	-	3
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	3	-	-	-	-	3
Bedford county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Botetourt county, total	6	-	-	2	-	4
0 to 19 employees	2	-	-	2	-	-
20 to 99 employees	4	-	-	-	-	4
Brunswick county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Buchanan county, total	280	-	-	278	2	-
0 to 19 employees	229	-	-	227	2	-
20 to 99 employees	45	-	-	45	-	-
100 to 249 employees	4	-	-	4	-	-
250 employees and over	2	-	-	2	-	-
Buckingham county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Campbell county, total	5	-	-	-	-	5
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	3	-	-	-	-	3
Caroline county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Carroll county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Charlottesville, total	2	1	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
Chesterfield county, total	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1
Clarke county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Covington, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Craig county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Culpeper county, total	5	-	-	1	-	4
0 to 19 employees	5	-	-	1	-	4
Danville, total	2	-	-	-	2	-
0 to 19 employees	2	-	-	-	2	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Virginia--Continued						
Dickenson county, total	63	-	-	62	1	-
0 to 19 employees	50	-	-	49	1	-
20 to 99 employees	10	-	-	10	-	-
100 to 249 employees	2	-	-	2	-	-
250 employees and over	1	-	-	1	-	-
Dinwiddie county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Fairfax county, total	8	-	-	-	-	8
0 to 19 employees	4	-	-	-	-	4
20 to 99 employees	3	-	-	-	-	3
100 to 249 employees	1	-	-	-	-	1
Fairfax city, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Fauquier county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Frederick county, total	5	-	-	-	-	5
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	4	-	-	-	-	4
Fredericksburg, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Galax, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Giles county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Goochland county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Greensville county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Halifax county, total	2	-	-	1	-	1
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	1	-	-	-	-	1
Hampton, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Hanover county, total	2	-	-	-	-	2
20 to 99 employees	2	-	-	-	-	2
Harrisonburg, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Henrico county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Henry county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
King William county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Lancaster county, total	2	-	-	1	1	-
0 to 19 employees	2	-	-	1	1	-
Lee county, total	31	-	-	28	-	3
0 to 19 employees	26	-	-	25	-	1
20 to 99 employees	5	-	-	3	-	2
Loudoun county, total	6	-	-	-	1	5
0 to 19 employees	3	-	-	-	1	2
20 to 99 employees	3	-	-	-	-	3
Lynchburg, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Madison county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Virginia--Continued						
Martinsville, total	-	-	-	-	-	-
0 to 19 employees	-	-	-	-	-	-
Mecklenburg county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Montgomery county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Nelson county, total	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Newport News, total	-	-	-	-	-	-
0 to 19 employees	-	-	-	-	-	-
Norfolk City, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
20 to 99 employees	1	-	-	-	-	1
Norton, total	5	-	-	5	-	-
0 to 19 employees	4	-	-	4	-	-
20 to 99 employees	1	-	-	1	-	-
Nottoway county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Orange county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Page county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Patrick county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Pittsylvania county, total	4	-	-	1	-	3
0 to 19 employees	3	-	-	1	-	2
20 to 99 employees	1	-	-	-	-	1
Prince Edward county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Prince George county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Prince William county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Pulaski county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Radford, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Richmond county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Richmond City, total	6	-	-	-	-	6
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	3	-	-	-	-	3
Roanoke county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Roanoke City, total	5	-	-	2	-	3
0 to 19 employees	4	-	-	2	-	2
20 to 99 employees	1	-	-	-	-	1
Rockbridge county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Rockingham county, total	8	-	-	2	-	6
0 to 19 employees	6	-	-	2	-	4
20 to 99 employees	2	-	-	-	-	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Virginia--Continued						
Russell county, total	20	-	-	18	-	2
0 to 19 employees	12	-	-	11	-	1
20 to 99 employees	6	-	-	5	-	1
100 to 249 employees	1	-	-	1	-	-
250 employees and over	1	-	-	1	-	-
Scott county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Shenandoah county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Smyth county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Southampton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Spotsylvania county, total	9	-	-	9	-	-
0 to 19 employees	9	-	-	9	-	-
Staunton, total	3	-	-	1	-	2
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	-	-	1
Tazewell county, total	55	-	-	50	1	4
0 to 19 employees	48	-	-	46	1	1
20 to 99 employees	7	-	-	4	-	3
Virginia Beach, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Washington county, total	7	1	-	3	-	3
0 to 19 employees	4	1	-	2	-	1
20 to 99 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	1	-	-
Westmoreland county, total	2	-	-	2	-	-
20 to 99 employees	2	-	-	2	-	-
Wise county, total	110	-	-	107	-	3
0 to 19 employees	92	-	-	90	-	2
20 to 99 employees	14	-	-	13	-	1
100 to 249 employees	4	-	-	4	-	-
Wythe county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Offshore	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-878

1967 CENSUS OF Mineral Industries



MIC67(2)-46

AREA STATISTICS

WASHINGTON

Issued February 1971

U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	3
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	3
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	4
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST
- New England
- Middle Atlantic

NORTH CENTRAL
- East North Central
- West North Central

SOUTH
- South Atlantic
- East South Central
- West South Central

WEST
- Mountain
- Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

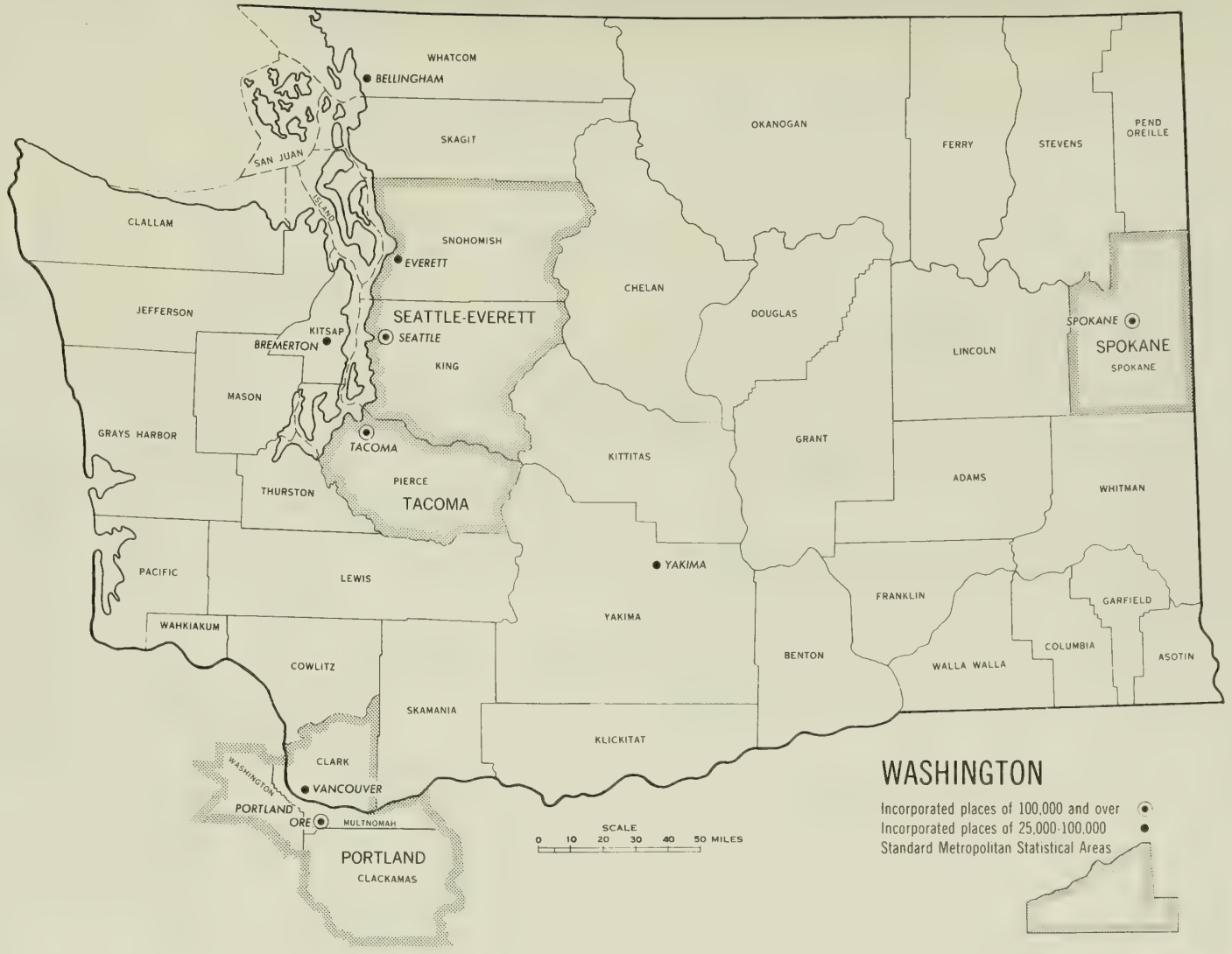

WHATCOM
BELLINGHAM
SKAGIT
SAN JUAN
ISLAND
CLALLAM
JEFFERSON
SNOHOMISH
EVERETT
SEATTLE-EVERETT
SEATTLE
KING
KITSAP
BREMERTON
MASON
GRAYS HARBOR
TACOMA
PIERCE
TACOMA
THURSTON
PACIFIC
LEWIS
WAHKIAKUM
COWLITZ
SKAMANIA
CLARK
VANCOUVER
WASHINGTON
PORTLAND
ORE
MULTNOMAH
PORTLAND
CLACKAMAS
OKANOGAN
CHELAN
DOUGLAS
KITTITAS
YAKIMA
YAKIMA
KLICKITAT
FERRY
STEVENS
PEND OREILLE
LINCOLN
SPOKANE
SPOKANE
SPOKANE
GRANT
ADAMS
WHITMAN
BENTON
FRANKLIN
WALLA WALLA
COLUMBIA
GARFIELD
ASOTIN
SCALE
0 10 20 30 40 50 MILES
WASHINGTON
Incorporated places of 100,000 and over
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]185	17	1.6	12.6	1.2	2.3	8.8	21.3
1963	[1]248	22	1.9	11.9	1.5	3.0	9.6	24.5
1958	200	28	2.0	10.9	1.6	2.8	7.9	23.9
1954	287	33	3.1	14.2	2.5	4.7	10.8	[2]22.3
Including operations in manufactures:								
1967	228	19	1.8	14.2	1.4	2.7	10.3	27.2
1963	294	24	2.1	13.3	1.8	3.5	10.9	29.3
1958	239	30	2.2	12.0	1.8	3.2	8.9	28.4
1954[3]	311	35	3.2	14.8	2.6	4.9	11.4	[2]25.2
1939[4]	[5]177	(NA)	4.2	6.2	3.9	6.6	5.4	11.1
1929[6]	141	(NA)	4.4	7.2	4.1	(NA)	6.5	11.1
1919[7]	98	(NA)	5.5	8.3	5.2	(NA)	7.6	10.4
1909[7]	425	(NA)	7.6	3.4	7.4	(NA)	3.1	6.1
1902[8]	[5]241	(NA)	5.5	4.7	[9]5.1	(NA)	4.3	4.4

Kind of operation and year	Selected expenses				Value of shipments and receipts [10]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	12.2	([11])	2.8	([11])	28.7	7.6	(NA)
1963	8.7	.2	3.0	2.5	34.8	4.1	.4
1958	[12]9.5	([12])	2.0	1.6	34.1	2.8	.5
1954	7.5	.2	1.7	2.4	[2]31.4	2.9	.4
Including operations in manufactures:							
1967	[13]15.8	([13])	([13])	([13])	35.5	(NA)	(NA)
1963	[12]9.5	.2	[12]3.0	[14]2.5	40.4	[14]4.1	[14].4
1958	[12]10.1	([12])	[12]2.0	[14]1.6	39.2	[14]2.8	[14].5
1954[3]	[12]8.3	.2	[12]1.7	[14]2.4	[2]35.0	[14]2.9	[14].4
1939[4]	2.6	(NA)	.1	(NA)	13.7	(NA)	.3
1929[6]	2.3	(NA)	(Z)	.7	13.4	(NA)	.5
1919[7]	2.8	-	.1	(NA)	13.3	(NA)	[15]1.6
1909[7]	1.2	.2	(Z)	(NA)	7.5	(NA)	(NA)
1902[8]	.9	(NA)	.1	(NA)	5.4	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 55 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3]Excludes data for sand and gravel mining operations in manufacturing establishments.

[4]Excludes data for dimension stone dressing, if any, in conjunction with one dimension granite and 2 dimension sandstone quarries.

[5]Represents number of mines and quarries and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[6]Excludes data for common clay and shale operations. There were 10 such mines in 1939 with products valued at $50 thousand. Also, excludes data for oil and gas extraction operations, if any.

[7]Excludes data for sand and gravel operations and for stone quarries operated as parts of cement and lime establishments. In 1929 there were 21 such sand and gravel establishments, with products valued at $1,096 thousand; 5 such stone quarries at cement establishments, with stone products valued at $562 thousand; and 2 such stone quarries at lime establishments. See also footnote 6.

[8]Excludes data for sand, gravel, common clay, and shale operations. Includes data for lime plants producing lime valued at $186 thousand.

[9]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[10]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication.

[11]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[12]For 1958, the cost of minerals received for preparation is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy. For 1963, 1958, and 1954, for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[15]Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to 8 percent of the total kw.-hr. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	185	17	1.6	12.6	1.2	2.3	8.8	21.3	15.0	28.7	7.6	1.9	24.5
10	Metal mining	39	4	.4	3.1	.3	.6	2.1	3.6	2.4	5.1	1.0	(D)	(D)
103	Lead and zinc ores	8	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1033	Zinc ores	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
104	Gold and silver ores	15	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1042	Lode gold	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.1
12	Bituminous coal and lignite mining	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1211	Bituminous coal	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	1.1
13	Oil and gas extraction	18	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	(NA)
131	Crude petroleum and natural gas	11	1	.1	.6	(Z)	(Z)	(Z)	(Z)	(D)	.1	(D)	.1	(NA)
1312	Crude petroleum	11	1	.1	.6	(Z)	(Z)	(Z)	(Z)	(D)	.1	(D)	.1	(NA)
138	Oil and gas field services	7	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	122	11	1.0	8.1	.8	1.5	5.9	15.6	9.1	21.2	3.6	1.0	(D)
142	Crushed and broken stone	31	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.2
1422	Crushed and broken limestone	10	-	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1429	Crushed and broken stone, n.e.c.	19	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.4
144	Sand and gravel	61	7	.6	4.5	.5	1.0	3.9	9.3	5.7	13.1	2.0	.5	7.7
1442	Construction sand and gravel	59	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
147	Chemical and fertilizer minerals	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees [1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	33	2	0.2	1.6	0.2	0.4	1.5	5.9	0.8	6.8	(NA)	0.3	4.8
1422	Crushed and broken limestone	4	1	0.1	0.4	0.1	0.1	0.4	1.7	0.3	2.0	(NA)	(NA)	(NA)
144	Sand and gravel	22	1	0.1	0.9	0.1	0.3	0.9	3.6	0.4	4.0	(NA)	0.1	2.9

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Washington:													
	Establishments.....number..	185	172	43	15	28	-	79	5	68	6	1	49	13
	Employees.....1,000..	1.6	1.5	.1	(Z)	.1	-	1.0	(D)	.5	(D)	(D)	(D)	(Z)
	Value added in mining.mil.dol..	21.3	21.4	1.7	.2	1.5	-	16.4	(D)	11.0	(D)	(D)	(D)	-.2
10	Metal mining:													
	Establishments.....number..	39	32	13	11	2	-	11	3	7	1	-	8	7
	Employees.....1,000..	.4	.4	(Z)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	(D)	(Z)
	Value added in mining.mil.dol..	3.6	3.7	.2	(D)	(D)	-	3.1	(D)	(D)	(D)	-	(D)	-.1
1021	Copper ores:													
	Establishments.....number..	4	3	2	-	2	-	-	-	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	(D)
103	Lead and zinc ores:													
	Establishments.....number..	8	7	4	4	-	-	2	2	-	-	-	1	1
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	-	-	-	(D)	(D)
104	Gold and silver ores:													
	Establishments.....number..	15	11	5	5	-	-	6	1	4	1	-	-	4
	Employees.....1,000..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	(D)	(D)	-	-	(D)
	Value added in mining.mil.dol..	(D)	(D)	(Z)	(Z)	-	-	(D)	(D)	(D)	(D)	-	-	(D)
1081	Metal mining services:													
	Establishments.....number..	6	6	-	-	-	-	-	-	-	-	-	6	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	6	5	2	2	-	-	3	-	3	-	-	-	1
	Employees.....1,000..	(D)	(Z)	(D)	(D)	-	-	(D)	-	(D)	-	-	-	(D)
	Value added in mining.mil.dol..	(D)	.2	(D)	(D)	-	-	(D)	-	(D)	-	-	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	6	6	4	4	-	-	2	2	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	6	6	4	4	-	-	2	2	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	(D)	-	-	(D)	(D)	-	-	-	-	-
13	Oil and gas extraction:													
	Establishments.....number..	18	12	-	-	-	-	-	-	-	-	-	12	6
	Employees.....1,000..	(D)	.1	-	-	-	-	-	-	-	-	-	.1	(D)
	Value added in mining.mil.dol..	(D)	.7	-	-	-	-	-	-	-	-	-	1.7	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	11	5	-	-	-	-	-	-	-	-	-	5	6
	Employees.....1,000..	.1	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
	Value added in mining.mil.dol..	(Z)	(D)	-	-	-	-	-	-	-	-	-	(D)	(D)
138	Oil and gas field services:													
	Establishments.....number..	7	7	-	-	-	-	-	-	-	-	-	7	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	122	122	26	-	26	-	66	-	61	5	1	29	-
	Employees.....1,000..	1.0	1.0	(D)	-	(D)	-	.7	-	(D)	(D)	(D)	(D)	-
	Value added in mining.mil.dol..	15.6	15.6	(D)	-	(D)	-	12.9	-	(D)	(D)	(D)	(D)	-
141	Dimension stone:													
	Establishments.....number..	6	6	6	-	6	-	-	-	-	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(Z)	-	(Z)	-	-	-	-	-	-	-	-
	Value added in mining.mil.dol..	.2	.2	.2	-	.2	-	-	-	-	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Washington--Continued													
14	Nonmetallic minerals, except fuels--Continued.													
142	Crushed and broken stone:													
	Establishments.....number..	31	31	2	-	2	-	29	-	29	-	-	-	-
	Employees.....1,000..	(L)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	61	61	6	-	6	-	31	-	26	5	-	24	-
	Employees.....1,000..	.5	.5	.1	-	.1	-	.4	-	(D)	(D)	-	.1	-
	Value added in mining.mil.dol..	9.3	9.3	1.1	-	1.1	-	7.3	-	(D)	(D)	-	1.0	-
145	Clay and related minerals:													
	Establishments.....number..	4	4	2	-	2	-	1	-	1	-	1	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	-
147	Chemical and fertilizer minerals:													
	Establishments.....number..	3	3	2	-	2	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	(D)	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	14	14	8	-	8	-	5	-	5	-	-	1	-
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	(D)	-	(D)	-	-	(D)	-
	Value added in mining.mil.dol..	(D)	(D)	.1	-	.1	-	(D)	-	(D)	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	185	248	Cost of supplies, total.....million dollars..	15.0	14.4
With 0 to 19 employees.....do....	168	226	Supplies used, minerals received for preparation, and purchased machinery.....do....	10.6	(NA)
With 20 to 99 employees.....do....	14	79	Cost of resales.....do....	.1	(NA)
With 100 or more employees.....do....	3	3	Purchased fuels consumed.....do....	.8	(NA)
All employees (average for year).....1,000..	1.6	1.9	Electric energy:		
Payroll (all employees), total for year.....million dollars..	12.6	12.7	Quantity purchased.....million kw.-hrs..	58.6	(NA)
			Cost.....million dollars..	.7	(NA)
			Generated less sold.....million kw.-hrs..	8.5	(NA)
			Contract work.....million dollars..	2.8	3.0
Production, development, and exploration workers:					
Average for the year.....1,000..	1.2	1.5	Value of shipments and receipts (including resales), total.....do....	28.7	34.8
March.....do....	1.3	(NA)	Value of resales.....do....	.2	(NA)
May.....do....	1.3	(NA)			
August.....do....	1.2	(NA)	Value added in mining.....do....	21.3	24.5
November.....do....	1.1	(NA)			
Man-hours.....millions..	2.3	3.0	Capital expenditures (except land and mineral rights), total.....do....	7.6	4.1
Wages.....million dollars..	8.8	9.6	Mineral development and exploration.....do....	3.3	1.1
			New structures and additions.....do....	.6	3.0
Supplemental labor cost not included in payroll.....do..	1.3	(NA)	New machinery and equipment.....do....	3.1	
			Used plant and equipment.....do....	.6	
Legally required expenditures, including Social Security contributions.....do..	.8	(NA)	Mineral development and exploration expenditures, total.....do....	4.7	(NA)
Payments for voluntary programs.....do..	.5	(NA)	Capitalized.....do....	3.3	1.1
			Expensed.....do....	1.4	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Washington, total	185	17	1.6	12.6	1.2	2.3	8.8	21.3	15.0	28.7	7.6	1.9	24.5
	COUNTIES[2]													
	King county, total	39	5	.3	2.7	.3	.5	1.8	4.8	2.8	6.2	1.4	.4	3.9
14	Nonmetallic minerals, except fuels	20	3	.2	1.6	.2	.3	1.3	4.1	2.2	5.1	1.2	.2	3.5
142	Crushed and broken stone	9	2	.1	1.1	.1	.2	.8	2.5	1.7	3.2	1.0	.1	1.4
	Pend Oreille county, total	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
103	Lead and zinc ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Pierce county, total	8	3	.2	1.4	.2	.3	1.2	2.4	1.2	3.2	.4	.2	2.2
14	Nonmetallic minerals, except fuels	6	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	4	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Spokane county, total	33	4	.4	3.4	.2	.4	1.5	2.5	2.6	4.1	1.0	.1	1.6
14	Nonmetallic minerals, except fuels	17	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.5
144	Sand and gravel	8	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Stevens county,	11	1	.1	.7	.1	.2	.6	1.7	(D)	2.4	(D)	.3	6.2

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Washington, total	185	39	-	6	18	122
0 to 4 employees	123	26	-	5	12	80
5 to 9 employees	26	6	-	-	2	18
10 to 19 employees	19	3	-	-	3	13
20 to 49 employees	11	2	-	1	1	7
50 to 99 employees	3	1	-	-	-	2
100 to 249 employees	3	1	-	-	-	2
Adams county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Asotin county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Benton county, total	2	-	-	1	-	1
0 to 19 employees	2	-	-	1	-	1
Chelan county, total	5	1	-	-	1	3
0 to 19 employees	5	1	-	-	1	3
Clallam county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Clark county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Cowlitz county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Douglas county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Ferry county, total	3	2	-	-	-	1
0 to 19 employees	2	1	-	-	-	1
20 to 99 employees	1	1	-	-	-	-
Franklin county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Grant county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Grays Harbor county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Jefferson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
King county, total	39	11	-	2	6	20
0 to 19 employees	34	11	-	1	5	17
20 to 99 employees	5	-	-	1	1	3
Kitsap county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Kittitas county, total	1	-	-	1	-	-
0 to 19 employees	1	-	-	1	-	-
Klickitat county, total	3	1	-	-	-	2
0 to 19 employees	3	1	-	-	-	2
Lewis county, total	3	-	-	1	1	1
0 to 19 employees	3	-	-	1	1	1
Lincoln county, total	1	1	-	-	-	-
0 to 19 employees	1	1	-	-	-	-
Mason county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Okanogan county, total	7	2	-	-	-	5
0 to 19 employees	7	2	-	-	-	5
Pacific county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries [1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Washington--Continued						
Pend Oreille county, total	3	3	-	-	-	-
0 to 19 employees	2	2	-	-	-	-
100 to 249 employees	1	1	-	-	-	-
Pierce county, total	8	1	-	-	1	6
0 to 19 employees	5	1	-	-	1	3
20 to 99 employees	3	-	-	-	-	3
San Juan county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Skagit county, total	8	-	-	-	-	8
0 to 19 employees	8	-	-	-	-	8
Snohomish county, total	13	1	-	-	-	12
0 to 19 employees	12	1	-	-	-	11
20 to 99 employees	1	-	-	-	-	1
Spokane county, total	33	15	-	-	1	17
0 to 19 employees	29	14	-	-	1	14
20 to 99 employees	2	1	-	-	-	1
100 to 249 employees	2	-	-	-	-	2
Stevens county, total	11	3	-	-	-	8
0 to 19 employees	10	2	-	-	-	8
20 to 99 employees	1	1	-	-	-	-
Thurston county, total	3	-	-	1	-	2
0 to 19 employees	3	-	-	1	-	2
Walla Walla county, total	4	-	-	-	2	2
0 to 19 employees	4	-	-	-	2	2
Whatcom county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Yakima county, total	5	-	-	-	1	4
0 to 19 employees	5	-	-	-	1	4
Offshore, total	5	-	-	-	5	-
0 to 19 employees	5	-	-	-	5	-

Standard Notes: - Represents zero.
[1] See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-876

1967 CENSUS OF Mineral Industries



MIC67(2)-47

AREA STATISTICS

WEST VIRGINIA

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	11
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.


STEUBENVILLE-WEIRTON
WEIRTON
STEUBENVILLE, OHIO
WHEELING
WHEELING
BELMONT
JEFFERSON
HANCOCK
BROOKE
OHIO
MARSHALL
MONONGALIA
WETZEL
MARION
FAIRMONT
PRESTON
TYLER
PLEASANTS
TAYLOR
HARRISON
CLARKSBURG
PARKERSBURG
WOOD
DODDRIDGE
RITCHIE
BARBOUR
TUCKER
MINERAL
HAMPSHIRE
MORGAN
BERKELEY
JEFFERSON
GRANT
HARDY
WIRT
LEWIS
GILMER
CALHOUN
UPSHUR
RANDOLPH
JACKSON
MASON
ROANE
BRAXTON
PENDLETON
LAWRENCE
ASHLAND
OHIO
CABELL
HUNTINGTON
BOYD
KENTUCKY
PUTNAM
CHARLESTON
KANAWHA
CLAY
WEBSTER
POCAHONTAS
HUNTINGTON-ASHLAND
CHARLESTON
WAYNE
LINCOLN
NICHOLAS
BOONE
FAYETTE
GREENBRIER
LOGAN
RALEIGH
MINGO
WYOMING
SUMMERS
MONROE
MERCER
MC DOWELL
SCALE
0 10 20 30 40 50 MILES
WEST VIRGINIA
Incorporated places of 25,000-100,000
Standard Metropolitan Statistical Areas
U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]1,780	341	45.6	337.7	40.4	78.2	288.6	744.4
1963	[1]2,702	374	47.6	277.0	42.4	79.8	238.5	596.1
1958	2,817	472	68.6	334.0	60.2	100.8	282.8	606.6
1954	2,322	462	74.7	307.5	68.3	114.9	272.7	513.5
Including operations in manufactures:								
1967	1,788	342	(D)	(D)	(D)	(D)	(D)	(D)
1963	2,715	376	47.8	277.8	42.6	80.1	239.3	599.4
1958	2,826	474	68.7	334.6	60.3	101.1	283.4	607.9
1954[2]	2,339	467	75.1	308.7	68.7	115.6	274.0	515.8
1939[3]	[4]1,351	(NA)	107.3	139.8	102.3	156.3	129.0	187.5
1929								
1919[5]	1,722	(NA)	108.7	134.6	100.8	(NA)	119.6	238.1
1909[5]	908	(NA)	77.0	39.9	73.5	(NA)	36.0	57.8
1902[6]	[4]5,338	(NA)	32.7	19.9	[7]30.1	(NA)	17.5	34.5
Excluding oil and gas extraction industries:								
1967	1,072	305	(D)	(D)	(D)	(D)	(D)	(D)
1963	1,660	338	43.0	256.6	38.6	72.1	222.3	526.5
1958	1,808	431	63.6	315.8	55.9	92.6	268.0	554.2
1954[2]	1,425	426	69.6	291.9	63.8	106.9	259.4	453.0
1939[8]	[4]800	(NA)	99.9	130.7	95.8	145.3	121.5	164.6
1929[9]	740	(NA)	106.6	141.3	101.4	(NA)	128.9	189.1
1919[5]	966	(NA)	95.0	119.6	88.5	(NA)	107.2	163.4
1909[5]	458	(NA)	69.5	34.7	66.7	(NA)	31.6	41.8
1902[6]	[4]839	(NA)	27.7	16.1	[7]25.6	(NA)	14.3	23.3

Kind of operation and year	Selected expenses				Value of shipments and receipts[11]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation[10] (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[12]426.3	([12])	56.5	([12])	1,090.5	136.7	(NA)
1963	171.0	138.6	37.1	47.7	910.6	80.0	6.9
1958	163.2	122.9	22.9	51.5	890.8	76.3	6.9
1954	149.6	59.0	26.8	46.2	736.0	59.0	5.9
Including operations in manufactures:							
1967	[13](D)	([13])	([13])	([13])	(D)	(D)	(NA)
1963	[14]171.8	138.6	[14]37.1	[15]47.7	914.7	[15]80.0	[15]6.9
1958	[14]163.5	122.9	[14]22.9	[15]51.5	892.4	[15]76.3	[15]6.9
1954[2]	[14]150.7	59.0	[14]26.8	[15]46.2	739.4	[15]59.0	[15]5.9
1939[3]	34.3	(NA)	2.4	(NA)	224.3	(NA)	5.7
1929							
1919[5]	47.7	[16]5.9	3.9	(NA)	295.6	(NA)	[17]12.6
1909[5]	13.0	[16].9	4.6	(NA)	76.3	(NA)	(NA)
1902[6]	8.6	(NA)	5.2	(NA)	48.4	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[13](D)	([13])	([13])	([13])	(D)	(D)	(NA)
1963	[14] [18]231.4	([18])	[14]15.7	[15]41.8	763.5	[15]51.9	[15]4.2
1958	[14]149.4	100.5	[14]15.7	[15]43.3	806.2	[15]56.7	[15]3.5
1954[2]	[14]140.3	56.9	[14]19.4	[15]41.9	666.9	[15]44.5	[15]3.8
1939[8]	31.5	(NA)	.4	(NA)	196.4	(NA)	3.7
1929[9]	34.5	(NA)	.3	8.3	223.9	(NA)	4.9
1919[5]	32.3	-	.4	(NA)	196.1	(NA)	[17]8.9
1909[5]	6.2	-	.1	(NA)	48.1	(NA)	(NA)
1902[6]	2.5	(NA)	.1	(NA)	25.9	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--West Virginia--Continued

[1]In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 443 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2]Excludes data for sand and gravel mining operations in manufacturing establishments.

[3]Excludes data for dimension stone dressing, if any, in conjunction with one sandstone quarry. For "All operations," includes data for one or two gas field hauling operations, with receipts for services amounting to less than $45 thousand; such operations were not classified in the mineral industries for later years.

[4]Represents number of mines and quarries, number of natural gas liquids plants, and, for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5]Excludes data for sand, gravel, common clay, and shale mining operations and for crushed and broken stone quarries operated as parts of cement and lime establishments. For 1939, the value of products of such establishments (except stone quarries at cement plants) was $2,503 thousand.

[6]Excludes data for sand, gravel, common clay, shale, and nonproducing operations. Includes data for lime plants producing lime valued at $182 thousand and for one cement plant.

[7]Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8]Excludes data for 3 nonproducing coal mines. See also footnote 3.

[9]Excludes data for one nonproducing establishment.

[10]For years prior to 1958, excludes the cost of natural gas processed at natural gas liquids plants.

[11]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, the figures represent net production and exclude this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants but, for 1954, includes the estimated value prior to processing of natural gas liquids contained in such gas.

[12]Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13]Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14]For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15]Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[16]Includes gas purchased for resale without processing.

[17]Excludes purchased electric energy, For "All operations" in 1939, the quantity of purchased electric energy amounted to 10 percent of the total kw.-hrs. equivalent of energy used and for "Excluding oil and gas extraction industries" in 1929, to 11 percent.

[18]Figures for the cost of minerals received for preparation are included with those for cost of supplies, purchases for resale, and purchased fuels and electric energy.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	1,780	341	45.6	337.7	40.4	78.2	288.6	744.4	482.8	1,090.5	136.7	47.6	596.1
12	Bituminous coal and lignite mining	1,014	286	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	41.6	506.8
121	Bituminous coal and lignite mining	1,014	286	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	41.6	506.8
1211	Bituminous coal	976	280	39.9	303.3	35.7	68.7	262.4	615.5	(D)	902.6	(D)	41.3	503.4
1213	Bituminous and lignite mining service, n.e.c.	38	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	3.3
13	Oil and gas extraction	716	37	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	4.8	72.9
1311	Crude petroleum and natural gas	545	17	2.6	14.0	2.0	3.9	9.7	69.6	23.6	71.1	22.1	3.2	50.2
	Crude petroleum	254	5	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	9.7
	Natural gas	291	12	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.9	40.6
1321	Natural gas liquids	9	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	162	16	1.1	6.4	1.0	2.0	5.4	14.3	(D)	18.7	(D)	(D)	(D)
1381	Drilling oil and gas wells	102	11	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.1	10.5
1389	Oil and gas field services, n.e.c.	55	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	50	18	1.2	7.9	.9	1.9	5.4	15.8	7.7	20.8	2.6	1.3	16.4
142	Crushed and broken stone	37	12	.7	4.2	.6	1.2	3.3	8.6	5.0	11.8	1.8	.6	7.0
1422	Crushed and broken limestone	30	11	.7	4.0	.6	1.1	3.1	8.0	(D)	11.1	(D)	.5	6.2
144	Sand and gravel	11	6	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.7	9.1
1442	Construction sand and gravel	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(NA)	(NA)
1443	Glass sand	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	West Virginia	8	1	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	West Virginia:													
	Establishments.....number..	1,780	1,758	820	655	23	142	256	176	44	36	36	646	22
	Employees.....1,000..	45.6	45.5	11.0	8.0	.4	2.6	30.7	25.8	1.1	3.9	.7	3.0	.1
	Value added in mining..mil.dol..	744.4	744.4	171.5	93.4	6.6	71.5	510.4	432.0	17.1	61.3	32.5	29.9	(Z)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	1,014	1,004	693	655	21	17	218	173	15	30	28	65	10
	Employees.....1,000..	(D)	(D)	8.8	8.0	(D)	(D)	29.7	(D)	.4	(D)	(D)	1.4	.1
	Value added in mining..mil.dol..	(D)	(D)	107.7	93.4	(D)	(D)	495.0	(D)	6.9	(D)	(D)	9.4	.1
121	Bituminous coal and lignite mining:													
	Establishments.....number..	1,014	1,004	693	655	21	17	218	173	15	30	28	65	10
	Employees.....1,000..	(D)	(D)	8.8	8.0	(D)	(D)	29.7	(D)	.4	(D)	(D)	1.4	.1
	Value added in mining..mil.dol..	(D)	(D)	107.7	93.4	(D)	(D)	495.0	(D)	6.9	(D)	(D)	9.4	.1
13	Oil and gas extraction:													
	Establishments.....number..	716	707	125	-	-	125	-	-	-	-	8	574	9
	Employees.....1,000..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	-	(D)	-	-	-	-	(D)	(D)	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	545	537	125	-	-	125	-	-	-	-	-	412	8
	Employees.....1,000..	2.6	2.6	(D)	-	-	(D)	-	-	-	-	-	(D)	(Z)
	Value added in mining..mil.dol..	69.6	69.7	(D)	-	-	(D)	-	-	-	-	-	(D)	-.1
1321	Natural gas liquids:													
	Establishments.....number..	9	8	-	-	-	-	-	-	-	-	8	-	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	(D)	-	(D)
138	Oil and gas field services:													
	Establishments.....number..	162	162	-	-	-	-	-	-	-	-	-	162	-
	Employees.....1,000..	1.1	1.1	-	-	-	-	-	-	-	-	-	1.1	-
	Value added in mining..mil.dol..	14.3	14.3	-	-	-	-	-	-	-	-	-	14.3	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	50	47	2	-	2	-	38	3	29	6	-	7	3
	Employees.....1,000..	1.2	(D)	(D)	-	(D)	-	1.0	(D)	.7	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	15.8	(D)	(D)	-	(D)	-	15.3	(D)	10.2	(D)	-	(D)	(D)
142	Crushed and broken stone:													
	Establishments.....number..	37	34	-	-	-	-	33	3	27	3	-	1	3
	Employees.....1,000..	.7	(D)	-	-	-	-	(D)	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	8.6	(D)	-	-	-	-	(D)	(D)	(D)	(D)	-	(D)	(D)
144	Sand and gravel:													
	Establishments.....number..	11	11	1	-	1	-	5	-	2	3	-	5	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	(D)	-
145	Clay and related minerals:													
	Establishments.....number..	1	1	1	-	1	-	-	-	-	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	-	-	-	-	-	-	-
1481	Nonmetallic minerals services:													
	Establishments.....number..	1	1	-	-	-	-	-	-	-	-	-	1	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	1,780	2,702	Cost of supplies, total.....million dollars..	482.8	394.5
With 0 to 19 employees.....do....	1,439	2,328	Supplies used, minerals received for preparation, and purchased machinery.....do....	394.2	(NA)
With 20 to 99 employees.....do....	221	255	Cost of resales.....do....	4.0	(NA)
With 100 or more employees.....do....	120	119	Purchased fuels consumed.....do....	7.2	(NA)
All employees (average for year).....1,000..	45.6	47.6	Electric energy:		
Payroll (all employees), total for year.....million dollars..	337.7	277.0	Quantity purchased.....million kw.-hrs..	1,893.6	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	20.9	(NA)
Average for the year.....1,000..	40.4	42.4	Generated less sold.....million kw.-hrs..	.9	(NA)
March.....do....	40.7	(NA)	Contract work.....million dollars..	56.5	37.1
May.....do....	40.6	(NA)	Value of shipments and receipts (including resales), total.....do....	1,090.5	910.6
August.....do....	40.6	(NA)	Value of resales.....do....	4.6	(NA)
November.....do....	39.6	(NA)	Value added in mining.....do....	744.4	596.1
Man-hours.....millions..	78.2	79.8	Capital expenditures (except land and mineral rights), total.....do....	136.7	80.0
Wages.....million dollars..	288.6	238.5	Mineral development and exploration.....do....	17.1	19.5
Supplemental labor cost not included in payroll.....do..	65.2	(NA)	New structures and additions.....do....	26.6	60.4
			New machinery and equipment.....do....	80.3	
			Used plant and equipment.....do....	12.7	
Legally required expenditures, including Social Security contributions.....do..	26.7	(NA)	Mineral development and exploration expenditures, total.....do....	28.3	(NA)
Payments for voluntary programs.....do..	38.6	(NA)	Capitalized.....do....	17.1	19.5
			Expensed.....do....	11.2	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	West Virginia, total	1,780	341	45.6	337.7	40.4	78.2	288.6	744.4	482.8	1,090.5	136.7	47.6	596.1
	COUNTIES[2]													
	Barbour county, total	35	6	.6	4.2	.6	1.0	3.6	9.1	5.0	11.7	2.4	.9	9.1
12	Bituminous coal and lignite mining	26	5	.6	4.0	.5	.9	3.4	7.8	3.5	9.9	1.3	.8	8.5
121	Bituminous coal and lignite mining	26	5	.6	4.0	.5	.9	3.4	7.8	3.5	9.9	1.3	(D)	(D)
	Berkeley county, total	4	1	.1	.7	.1	.1	.5	.9	.5	1.3	.2	(D)	(D)
14	Nonmetallic minerals, except fuels	4	1	.1	.7	.1	.1	.5	.9	.5	1.3	.2	(D)	(D)
142	Crushed and broken stone	4	1	.1	.7	.1	.1	.5	.9	.5	1.3	.2	(D)	(D)
	Boone county, total	56	15	1.7	13.7	1.6	3.1	12.5	29.7	20.8	39.6	10.8	1.9	25.7
12	Bituminous coal and lignite mining	38	13	1.6	13.0	1.5	3.0	12.1	27.7	20.4	37.5	10.5	1.7	23.7
121	Bituminous coal and lignite mining	38	13	1.6	13.0	1.5	3.0	12.1	27.7	20.4	37.5	10.5	(D)	(D)
13	Oil and gas extraction	18	2	.1	.7	.1	.1	.4	2.0	.4	2.1	.3	.2	2.0
131	Crude petroleum and natural gas	14	2	.1	.7	.1	.1	.4	2.0	.4	2.1	.3	.2	1.8
	Brooke county, total	9	3	.2	1.5	.2	.3	1.2	2.6	1.2	3.6	.2	.3	2.7
12	Bituminous coal and lignite mining	9	3	.2	1.5	.2	.3	1.2	2.6	1.2	3.6	.2	.3	2.7
121	Bituminous coal and lignite mining	9	3	.2	1.5	.2	.3	1.2	2.6	1.2	3.6	.2	.3	2.7
	Cabell county	62	4	.2	1.5	.1	.2	.6	1.3	.5	1.4	.5	.3	1.3
	Calhoun county, total	77	1	.1	.6	.1	.2	.4	2.1	1.2	2.4	.8	.3	2.1
13	Oil and gas extraction	76	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	2.1
	Fayette county, total	71	15	1.5	10.6	1.3	2.5	8.9	17.1	15.7	31.3	1.5	2.4	23.1
12	Bituminous coal and lignite mining	66	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.3	23.1
121	Bituminous coal and lignite mining	66	15	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Gilmer county, total	42	2	.3	1.8	.2	.5	1.5	4.1	2.2	5.9	.3	.6	6.2
12	Bituminous coal and lignite mining	7	1	.1	.8	.1	.2	.8	1.0	1.0	1.9	.1	.3	3.2
121	Bituminous coal and lignite mining	7	1	.1	.8	.1	.2	.8	1.0	1.0	1.9	.1	(D)	(D)
13	Oil and gas extraction	35	1	.2	1.0	.1	.3	.7	3.1	1.2	4.0	.2	.2	3.0
	Grant county, total	10	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	8	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	8	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Greenbrier county, total	51	8	.5	2.7	.5	.8	2.3	5.6	3.1	7.3	1.3	.6	4.2
12	Bituminous coal and lignite mining	45	5	.4	2.0	.4	.6	1.8	4.2	2.2	5.7	.7	.5	3.1
121	Bituminous coal and lignite mining	45	5	.4	2.0	.4	.6	1.8	4.2	2.2	5.7	.7	(D)	(D)
14	Nonmetallic minerals, except fuels	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	3	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Harrison county, total	92	21	1.8	12.9	1.5	3.0	10.6	27.8	12.6	37.8	2.7	2.3	27.5
12	Bituminous coal and lignite mining	57	18	1.6	11.8	1.4	2.7	9.8	24.1	11.7	33.5	2.3	2.0	25.2
121	Bituminous coal and lignite mining	57	18	1.6	11.8	1.4	2.7	9.8	24.1	11.7	33.5	2.3	(D)	(D)
13	Oil and gas extraction	34	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	28	2	.1	.7	.1	.2	.5	3.1	.8	3.6	.3	.2	1.8

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	West Virginia-Continued													
	COUNTIES[2]--Continued													
	Jefferson county, total.....	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Kanawha county, total.....	170	35	3.8	28.4	3.3	6.4	23.4	61.5	47.5	90.5	17.5	3.7	50.6
12	Bituminous coal and lignite mining.....	60	26	3.2	24.1	2.7	5.4	20.4	47.4	37.1	71.9	12.6	(D)	(D)
121	Bituminous coal and lignite mining.....	60	26	3.2	24.1	2.7	5.4	20.4	47.4	37.1	71.9	12.6	(D)	(D)
13	Oil and gas extraction.....	107	10	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	9.4
131	Crude petroleum and natural gas.....	80	4	.4	2.2	.2	.5	1.3	8.7	1.4	7.2	3.0	.3	5.8
138	Oil and gas field services..	22	5	.3	1.9	.2	.5	1.6	3.8	1.5	4.8	.5	.1	1.2
	Lewis county, total.....	40	4	.3	1.8	.3	.6	1.6	4.8	3.2	6.5	1.5	.4	5.0
13	Oil and gas extraction.....	37	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	4.9
131	Crude petroleum and natural gas.....	21	2	.1	.7	.1	.2	.5	2.2	1.8	2.9	1.1	.1	2.6
	Lincoln county, total.....	31	4	.2	1.1	.2	.3	.9	5.2	1.0	5.1	1.1	.2	3.3
13	Oil and gas extraction.....	30	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	3.1
131	Crude petroleum and natural gas.....	20	2	.1	.8	.1	.2	.6	4.6	.7	4.4	1.0	.2	2.9
	Logan county, total.....	62	31	5.3	42.4	4.5	8.8	35.2	78.6	43.7	112.4	9.8	4.8	61.2
12	Bituminous coal and lignite mining.....	44	30	5.2	42.0	4.4	8.8	34.9	75.8	43.2	109.4	9.6	4.5	59.5
121	Bituminous coal and lignite mining.....	44	30	5.2	42.0	4.4	8.8	34.9	75.8	43.2	109.4	9.6	(D)	(D)
	McDowell county, total.....	152	28	5.4	39.3	4.8	8.8	33.2	94.3	77.5	162.0	9.8	5.6	80.0
12	Bituminous coal and lignite mining.....	145	26	5.3	38.8	4.8	8.7	33.0	91.1	76.7	158.8	8.9	5.6	78.9
121	Bituminous coal and lignite mining.....	145	26	5.3	38.8	4.8	8.7	33.0	91.1	76.7	158.8	8.9	(D)	(D)
	Marion county, total.....	41	12	3.4	28.3	2.9	5.9	23.7	64.3	29.4	79.1	14.7	2.4	38.3
12	Bituminous coal and lignite mining.....	22	11	3.3	27.9	2.8	5.7	23.4	63.4	29.2	78.0	14.6	2.2	37.8
121	Bituminous coal and lignite mining.....	22	11	3.3	27.9	2.8	5.7	23.4	63.4	29.2	78.0	14.6	(D)	(D)
	Marshall county, total.....	17	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining.....	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining.....	3	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Mason county, total.....	14	4	.2	.7	.1	.3	.6	1.4	.8	2.0	.3	.2	.9
12	Bituminous coal and lignite mining.....	8	4	.1	.7	.1	.2	.6	1.4	.8	2.0	.3	(D)	(D)
121	Bituminous coal and lignite mining.....	8	4	.1	.7	.1	.2	.6	1.4	.8	2.0	.3	(D)	(D)
	Mercer county, total.....	40	7	.9	5.9	.9	1.5	4.9	13.9	6.9	17.4	3.4	.6	6.2
12	Bituminous coal and lignite mining.....	37	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	5.6
121	Bituminous coal and lignite mining.....	37	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Mingo county, total.....	67	10	1.2	8.0	1.1	2.0	7.1	20.0	7.8	24.8	3.0	1.6	19.4
12	Bituminous coal and lignite mining.....	51	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	17.6
121	Bituminous coal and lignite mining.....	51	10	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.5	17.6

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	West Virginia-Continued													
	COUNTIES[2]--Continued													
	Monongalia county, total	51	11	2.3	19.4	2.0	4.2	16.4	44.4	32.5	72.2	4.7	1.7	30.0
12	Bituminous coal and lignite mining	37	9	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	37	9	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.1
142	Crushed and broken stone	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Morgan county, total	3	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	2	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Nicholas county, total	68	14	2.4	19.0	2.2	4.4	17.5	34.6	19.5	51.5	2.6	2.4	25.3
12	Bituminous coal and lignite mining	60	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	2.4	25.2
121	Bituminous coal and lignite mining	60	14	GG	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Ohio county, total	5	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Preston county, total	82	9	.7	3.5	.7	1.3	3.4	7.9	5.5	12.3	1.1	1.5	11.4
12	Bituminous coal and lignite mining	72	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.4	10.5
121	Bituminous coal and lignite mining	72	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Raleigh county, total	93	31	3.4	26.1	3.1	6.1	23.2	49.2	32.5	68.5	13.4	3.1	33.8
12	Bituminous coal and lignite mining	83	29	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	3.0	33.1
121	Bituminous coal and lignite mining	83	29	HH	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Randolph county, total	21	7	.3	1.3	.3	.4	1.1	3.1	.6	3.5	.2	.6	4.5
12	Bituminous coal and lignite mining	18	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	3.9
121	Bituminous coal and lignite mining	18	6	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.5	3.9
	Ritchie county, total	87	3	.2	1.1	.2	.4	1.0	2.1	1.1	2.5	.7	.3	2.9
13	Oil and gas extraction	87	3	.2	1.1	.2	.4	1.0	2.1	1.1	2.5	.7	.3	2.9
131	Crude petroleum and natural gas	58	2	.1	.6	.1	.2	.5	1.6	.7	1.6	.6	.2	1.7
	Roane county, total	134	3	.3	1.7	.3	.5	1.4	4.3	3.2	5.3	2.2	.2	2.6
13	Oil and gas extraction	133	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	2.6
131	Crude petroleum and natural gas	110	1	.2	1.1	.2	.3	.8	2.9	2.3	3.6	1.6	.2	2.1
	Upshur county, total	38	3	.2	1.4	.2	.4	1.2	3.4	3.3	4.9	1.8	.5	5.3
12	Bituminous coal and lignite mining	16	2	.2	.9	.1	.3	.8	1.2	.8	2.0	.1	.3	2.8
121	Bituminous coal and lignite mining	16	2	.2	.9	.1	.3	.8	1.2	.8	2.0	.1	.3	2.8
	Wayne county, total	18	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
12	Bituminous coal and lignite mining	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	West Virginia-Continued													
	COUNTIES[2]--Continued													
	Webster county, total.....	15	2	.1	.7	.1	.2	.7	1.4	1.2	2.3	.2	.4	3.5
12	Bituminous coal and lignite mining.....	14	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	3.5
121	Bituminous coal and lignite mining.....	14	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	3.5
	Wetzel county, total.....	25	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction.....	22	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
132	Natural gas liquids.....	2	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Wood county, total.....	80	3	.3	1.4	.2	.4	1.0	3.2	1.3	4.0	.6	.2	3.2
13	Oil and gas extraction.....	77	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	56	1	.1	.6	.1	.2	.4	.9	.3	.9	.3	.1	1.4
	Wyoming county, total.....	49	23	4.2	32.8	3.8	7.5	29.1	65.5	29.0	88.9	5.6	3.9	52.9
12	Bituminous coal and lignite mining.....	39	22	4.1	32.4	3.8	7.4	28.9	63.1	28.7	86.4	5.4	3.9	50.5
121	Bituminous coal and lignite mining.....	39	22	4.1	32.4	3.8	7.4	28.9	63.1	28.7	86.4	5.4	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix for Explanation of Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
West Virginia, total	1,780	-	-	1,014	716	50
0 to 4 employees	1,050	-	-	440	596	14
5 to 9 employees	201	-	-	138	56	7
10 to 19 employees	188	-	-	151	26	11
20 to 49 employees	161	-	-	124	26	11
50 to 99 employees	60	-	-	47	7	6
100 to 249 employees	69	-	-	65	4	-
250 to 499 employees	45	-	-	43	1	1
500 to 999 employees	6	-	-	6	-	-
Barbour county, total	35	-	-	26	9	-
0 to 19 employees	29	-	-	21	8	-
20 to 99 employees	4	-	-	3	1	-
100 to 249 employees	2	-	-	2	-	-
Berkeley county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Boone county, total	56	-	-	38	18	-
0 to 19 employees	41	-	-	25	16	-
20 to 99 employees	10	-	-	8	2	-
100 to 249 employees	4	-	-	4	-	-
250 employees and over	1	-	-	1	-	-
Braxton county, total	18	-	-	1	17	-
0 to 19 employees	18	-	-	1	17	-
Brooke county, total	9	-	-	9	-	-
0 to 19 employees	6	-	-	6	-	-
20 to 99 employees	2	-	-	2	-	-
100 to 249 employees	1	-	-	1	-	-
Cabell county, total	62	-	-	9	49	4
0 to 19 employees	58	-	-	7	48	3
20 to 99 employees	4	-	-	2	1	1
Calhoun county, total	77	-	-	1	76	-
0 to 19 employees	76	-	-	1	75	-
20 to 99 employees	1	-	-	-	1	-
Clay county, total	22	-	-	3	19	-
0 to 19 employees	21	-	-	2	19	-
20 to 99 employees	1	-	-	1	-	-
Doddridge county, total	32	-	-	1	30	1
0 to 19 employees	32	-	-	1	30	1
Fayette county, total	71	-	-	66	5	-
0 to 19 employees	56	-	-	51	5	-
20 to 99 employees	12	-	-	12	-	-
100 to 249 employees	2	-	-	2	-	-
250 employees and over	1	-	-	1	-	-
Gilmer county, total	42	-	-	7	35	-
0 to 19 employees	40	-	-	6	34	-
20 to 99 employees	2	-	-	1	1	-
Grant county, total	10	-	-	8	1	1
0 to 19 employees	7	-	-	5	1	1
20 to 99 employees	1	-	-	1	-	-
100 to 249 employees	2	-	-	2	-	-
Greenbrier county, total	51	-	-	45	3	3
0 to 19 employees	43	-	-	40	3	-
20 to 99 employees	8	-	-	5	-	3
Hampshire county, total	3	-	-	-	3	-
0 to 19 employees	3	-	-	-	3	-
Hancock county, total	6	-	-	4	2	-
0 to 19 employees	5	-	-	3	2	-
20 to 99 employees	1	-	-	1	-	-
Hardy county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
West Virginia-Continued						
Harrison county, total	92	-	-	57	34	1
0 to 19 employees	71	-	-	39	31	1
20 to 99 employees	16	-	-	13	3	-
100 to 249 employees	4	-	-	4	-	-
250 employees and over	1	-	-	1	-	-
Jackson county, total	18	-	-	-	18	-
0 to 19 employees	17	-	-	-	17	-
20 to 99 employees	1	-	-	-	1	-
Jefferson county, total	3	-	-	1	-	2
0 to 19 employees	1	-	-	1	-	-
20 to 99 employees	2	-	-	-	-	2
Kanawha county, total	171	-	-	60	107	4
0 to 19 employees	135	-	-	34	97	4
20 to 99 employees	27	-	-	17	10	-
100 to 249 employees	5	-	-	5	-	-
250 employees and over	4	-	-	4	-	-
Lewis county, total	40	-	-	3	37	-
0 to 19 employees	36	-	-	2	34	-
20 to 99 employees	4	-	-	1	3	-
Lincoln county, total	31	-	-	-	30	1
0 to 19 employees	27	-	-	-	26	1
20 to 99 employees	4	-	-	-	4	-
Logan county, total	62	-	-	44	17	1
0 to 19 employees	31	-	-	14	16	1
20 to 99 employees	13	-	-	12	1	-
100 to 249 employees	8	-	-	8	-	-
250 employees and over	10	-	-	10	-	-
McDowell county, total	152	-	-	145	7	-
0 to 19 employees	124	-	-	119	5	-
20 to 99 employees	15	-	-	13	2	-
100 to 249 employees	7	-	-	7	-	-
250 employees and over	6	-	-	6	-	-
Marion county, total	43	-	-	22	20	1
0 to 19 employees	31	-	-	11	19	1
20 to 99 employees	4	-	-	3	1	-
100 to 249 employees	1	-	-	1	-	-
250 employees and over	7	-	-	7	-	-
Marshall county, total	17	-	-	3	14	-
0 to 19 employees	14	-	-	-	14	-
100 to 249 employees	2	-	-	2	-	-
250 employees and over	1	-	-	1	-	-
Mason county, total	14	-	-	8	6	-
0 to 19 employees	10	-	-	4	6	-
20 to 99 employees	4	-	-	4	-	-
Mercer county, total	40	-	-	37	1	2
0 to 19 employees	33	-	-	30	1	2
20 to 99 employees	4	-	-	4	-	-
100 to 249 employees	2	-	-	2	-	-
250 employees and over	1	-	-	1	-	-
Mineral county, total	9	-	-	5	1	3
0 to 19 employees	7	-	-	3	1	3
20 to 99 employees	2	-	-	2	-	-
Mingo county, total	67	-	-	51	15	1
0 to 19 employees	57	-	-	41	15	1
20 to 99 employees	7	-	-	7	-	-
100 to 249 employees	2	-	-	2	-	-
250 employees and over	1	-	-	1	-	-
Monongalia county, total	51	-	-	37	12	2
0 to 19 employees	40	-	-	28	12	-
20 to 99 employees	6	-	-	4	-	2
100 to 249 employees	1	-	-	1	-	-
250 employees and over	4	-	-	4	-	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
West Virginia-Continued						
Monroe county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Morgan county, total	3	-	-	-	1	2
0 to 19 employees	1	-	-	-	1	-
20 to 99 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Nicholas county, total	68	-	-	60	7	1
0 to 19 employees	54	-	-	46	7	1
20 to 99 employees	5	-	-	5	-	-
100 to 249 employees	7	-	-	7	-	-
250 employees and over	2	-	-	2	-	-
Ohio county, total	5	-	-	2	3	-
0 to 19 employees	3	-	-	-	3	-
100 to 249 employees	1	-	-	1	-	-
240 employees and over	1	-	-	1	-	-
Pendleton county, total	3	-	-	1	-	2
0 to 19 employees	2	-	-	1	-	1
20 to 99 employees	1	-	-	-	-	1
Pleasants county, total	19	-	-	-	19	-
0 to 19 employees	19	-	-	-	19	-
Pocahontas county, total	5	-	-	3	-	2
0 to 19 employees	4	-	-	3	-	1
20 to 99 employees	1	-	-	-	-	1
Preston county, total	82	-	-	72	8	2
0 to 19 employees	73	-	-	64	8	1
20 to 99 employees	9	-	-	8	-	1
Putnam county, total	14	-	-	2	12	-
0 to 19 employees	13	-	-	2	11	-
20 to 99 employees	1	-	-	-	1	-
Raleigh county, total	93	-	-	83	8	2
0 to 19 employees	62	-	-	54	6	2
20 to 99 employees	21	-	-	19	2	-
100 to 249 employees	7	-	-	7	-	-
250 employees and over	3	-	-	3	-	-
Randolph county, total	21	-	-	18	2	1
0 to 19 employees	14	-	-	12	2	-
20 to 99 employees	7	-	-	6	-	1
Ritchie county, total	87	-	-	-	87	-
0 to 19 employees	84	-	-	-	84	-
20 to 99 employees	3	-	-	-	3	-
Roane county, total	134	-	-	1	133	-
0 to 19 employees	131	-	-	-	131	-
20 to 99 employees	3	-	-	1	2	-
Taylor county, total	7	-	-	6	1	-
0 to 19 employees	7	-	-	6	1	-
Tucker county, total	4	-	-	1	2	1
0 to 19 employees	2	-	-	-	2	-
20 to 99 employees	2	-	-	1	-	1
Tyler county, total	16	-	-	-	16	-
0 to 19 employees	15	-	-	-	15	-
20 to 99 employees	1	-	-	-	1	-
Upshur county, total	38	-	-	16	22	-
0 to 19 employees	35	-	-	14	21	-
20 to 99 employees	3	-	-	2	1	-
Wayne county, total	18	-	-	3	15	-
0 to 19 employees	15	-	-	1	14	-
20 to 99 employees	3	-	-	2	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
West Virginia-Continued						
Webster county, total	15	-	-	14	1	-
0 to 19 employees	13	-	-	12	1	-
20 to 99 employees	2	-	-	2	-	-
Wetzel county, total	25	-	-	1	24	-
0 to 19 employees	21	-	-	-	21	-
20 to 99 employees	4	-	-	1	3	-
Wirt county, total	10	-	-	-	10	-
0 to 19 employees	9	-	-	-	9	-
20 to 99 employees	1	-	-	-	1	-
Wood county, total	80	-	-	-	77	3
0 to 19 employees	77	-	-	-	76	1
20 to 99 employees	3	-	-	-	1	2
Wyoming county, total	49	-	-	39	9	1
0 to 19 employees	26	-	-	17	8	1
20 to 99 employees	10	-	-	9	1	-
100 to 249 employees	7	-	-	7	-	-
250 employees and over	6	-	-	6	-	-

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-879

1967 CENSUS OF Mineral Industries



MIC67(2)-48

AREA STATISTICS

WISCONSIN

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	4
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	5
4	Detailed Statistics: 1967 and 1963	6
5	General Statistics by County and Industry Groups: 1967 and 1963	7
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	8
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

–	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.



U S DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]236	25	2.4	16.8	1.8	4.0	12.7	37.8
1963	[1]346	27	3.1	17.0	2.5	5.0	13.2	37.5
1958	295	37	3.7	17.7	3.2	6.3	14.8	31.6
1954	294	38	4.0	77.0	3.5	7.4	14.3	37.1
Including operations in manufactures:								
1967	272	29	2.7	18.8	2.1	4.6	14.5	43.6
1963	397	33	3.5	18.9	2.8	5.7	14.8	41.3
1958	333	44	4.1	19.4	3.6	7.0	16.4	35.0
1954[2]	329	43	4.3	18.1	3.8	7.9	15.3	38.7
1939[3]	[4]153	(NA)	2.3	3.1	2.1	4.2	2.6	6.5
1929[5]	147	(NA)	3.3	5.1	2.9	(NA)	4.2	10.5
Excluding sand, gravel, common clay, and shale operations and stone quarries operated as parts of cement and lime plants:								
1967	140	23	1.6	10.6	1.3	2.9	8.6	23.6
1963	150	22	2.1	11.7	1.8	3.5	9.3	24.5
1953	130	28	2.8	14.2	2.4	4.6	11.3	20.2
1954	150	31	3.2	13.4	2.9	5.8	11.7	29.3
1939[3]	[3]83	(NA)	1.8	2.4	1.6	3.2	2.0	4.3
1929[6]	91	(NA)	2.6	3.9	2.4	(NA)	3.4	8.0
1919	96	(NA)	4.0	5.5	3.7	(NA)	4.4	7.4
1909	291	(NA)	5.1	3.4	4.8	(NA)	3.1	5.9
1902[7]	[4]415	(NA)	3.9	2.2	[8]3.6	(NA)	2.0	3.6

Kind of operation and year	Selected expenses				Value of shipments and receipts[9]	Capital expenditures	Energy used (kw.-hrs. equivalent)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)	(million dollars)	(million dollars)	(billions)
Mineral industries only:							
1967	[10]17.5	([10])	2.5	([10])	50.3	7.5	(NA)
1963	[11]16.0	([11])	2.2	4.4	54.7	5.4	.7
1958	12.1	1.0	2.0	2.6	44.9	4.5	.7
1954	12.6	.7	1.5	5.2	49.6	7.6	.7
Including operations in manufactures:							
1967	[12]21.3	([12])	([12])	([12])	57.1	7.8	(NA)
1963	[13]16.5	1.0	[13]2.3	[14]4.5	60.1	[14]5.5	[14].7
1958	[13]13.4	1.0	[13]2.0	[14]2.7	49.6	[14]4.6	[14].7
1954[2]	[13]13.1	.8	1.5	[14]5.2	51.7	[14]7.6	[14].7
1939[3]	1.9	(NA)	(Z)	(NA)	8.4	(NA)	.2
1929[5]	2.6	(NA)	.1	.7	13.2	(NA)	.7
Excluding sand, gravel, common clay, and shale operations and stone quarries operated as parts of cement and lime plants:							
1967	21.3	([12])	([12])	([12])	32.4	3.8	
1963	[11] [13]12.6	([11])	[13]1.0	[14]2.9	37.8	[14]3.2	[14].3
1958	[13]8.6	1.0	1.0	[14]1.4	29.8	[14]2.5	[14].4
1954	[13]11.8	.8	[13].6	[14]4.0	39.2	6.3	[14].4
1939[3]	1.5	(NA)	(Z)	(NA)	6.3	(NA)	.1
1929[6]	2.0	(NA)	(Z)	.5	10.0	(NA)	.6
1919	2.8	.1	.3	(NA)	10.6	(NA)	[15]6.1
1909	1.4	12	(Z)	(NA)	7.5	(NA)	(NA)
1902[7]	.8	(NA)	(Z)	(NA)	4.4	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Standard Notes: -Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Wisconsin--Continued

[1] In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 61 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes data for sand and gravel mining operations in manufacturing establishments.

[3] Except, in part, for value of shipments and value added, excludes data for dimension stone dressing plants operated in conjunction with quarries. The value added in dressing limestone and granite at such operations was $236 thousand; this value has been included in the value of shipments and value added in mining. The comparable value for sandstone is not available. Excludes data for one central office associated with nonproducing operations.

[4] Represents number of mines and quarries.

[5] Excludes data for common clay and shale operations. In 1939, there were 4 such mines with products valued at $34 thousand. See also footnote 6.

[6] Excludes data for one nonproducing establishment.

[7] Includes data for 2 cement plants and for lime plants producing lime valued at $549 thousand.

[8] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[9] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishments. For 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For all other years represents net production and excludes this duplication.

[10] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11] Figures for cost of minerals received for preparation are included with those for cost of supplies, purchases for resale, and purchased fuels and electric energy.

[12] Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[13] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[14] Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[15] Excludes purchased electric energy. For such operations in 1939, the quantity of purchased electric energy amounted to only 5 percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	236	25	2.4	16.8	1.8	4.0	12.7	37.8	20.0	50.3	7.5	3.1	37.5
10	Metal mining	9	4	.1	.9	.1	.3	.8	3.1	3.0	4.9	1.3	(NA)	5.5
103	Lead and zinc ores	9	4	.1	.9	.1	.3	.8	3.1	3.0	4.9	1.3	(D)	(D)
1033	Zinc ores	8	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	222	21	2.2	15.6	1.7	3.7	11.8	34.7	16.9	45.4	6.2	2.8	32.0
141	Dimension stone	20	1	.1	.7	.1	.3	.6	1.2	.4	1.5	.1	.1	.7
1412	Dimension limestone	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
142	Crushed and broken stone	64	14	.9	6.5	.8	1.7	5.3	13.2	7.7	18.9	2.1	1.4	16.1
1422	Crushed and broken limestone	51	10	.7	5.3	.6	1.4	4.3	9.8	5.6	13.6	1.8	1.0	8.3
1429	Crushed and broken stone, n.e.c.	11	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	132	6	1.1	8.3	.8	1.7	5.9	20.0	8.8	24.7	4.0	1.2	15.1
1442	Construction sand and gravel	124	5	1.0	7.7	.7	1.6	5.4	17.8	7.8	22.1	3.5	(NA)	(NA)
1444	Molding sand	6	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees[1]	Value added in mining
		Total (number)	With 20 employees or more (number)	Number[1] (1,000)	Payroll[1] (million dollars)	Number[1] (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	36	4	0.3	2.1	0.3	0.6	1.8	5.8	1.3	6.8	[2]0.3	0.4	3.9
	Dimension limestone sub-industry	7	1	0.1	1.0	0.1	0.2	0.8	1.9	0.6	2.1	0.3	(NA)	(NA)
144	Sand and gravel	16	2	0.1	0.6	0.1	0.2	0.6	3.1	0.4	3.5	(NA)	0.1	1.5

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Wisconsin:													
	Establishments.....number..	236	235	27	6	21	-	139	1	137	1	7	62	1
	Employees.....1,000..	2.4	(D)	.2	(Z)	.1	-	1.9	(D)	(D)	(D)	(D)	.2	(D)
	Value added in mining..mil.dol..	37.8	(D)	2.1	.8	1.3	-	30.8	(D)	(D)	(D)	(D)	2.8	(D)
10	Metal mining:													
	Establishments.....number..	9	9	6	6	-	-	1	1	-	-	2	-	-
	Employees.....1,000..	.1	.1	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining..mil.dol..	3.1	3.1	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	-
103	Lead and zinc ores:													
	Establishments.....number..	9	9	6	6	-	-	1	1	-	-	2	-	-
	Employees.....1,000..	.1	.1	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	-
	Value added in mining..mil.dol..	3.1	3.1	(D)	(D)	-	-	(D)	(D)	-	-	(D)	-	-
13	Oil and gas extraction:													
	Establishments.....number..	5	5	-	-	-	-	-	-	-	-	-	5	-
	Employees.....1,000..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
	Value added in mining..mil.dol..	(Z)	(Z)	-	-	-	-	-	-	-	-	-	(Z)	-
131	Crude petroleum and natural gas:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
138	Oil and gas field services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	222	221	21	-	21	-	138	-	137	1	5	57	1
	Employees.....1,000..	2.2	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)
	Value added in mining..mil.dol..	34.7	(D)	(D)	-	(D)	-	(D)	-	(D)	(D)	(D)	(D)	(D)
141	Dimension stone:													
	Establishments.....number..	20	20	15	-	15	-	5	-	5	-	-	-	-
	Employees.....1,000..	.1	.1	.1	-	.1	-	.1	-	.1	-	-	-	-
	Value added in mining..mil.dol..	1.2	1.2	.8	-	.8	-	.4	-	.4	-	-	-	-
142	Crushed and broken stone:													
	Establishments.....number..	64	63	1	-	1	-	60	-	60	-	2	-	1
	Employees.....1,000..	.9	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	(D)
	Value added in mining..mil.dol..	13.2	(D)	(D)	-	(D)	-	(D)	-	(D)	-	(D)	-	(D)
144	Sand and gravel:													
	Establishments.....number..	132	132	4	-	4	-	71	-	70	1	3	54	-
	Employees.....1,000..	1.1	1.1	(Z)	-	(Z)	-	(D)	-	(D)	(D)	(D)	(D)	-
	Value added in mining..mil.dol..	20.0	20.0	.3	-	.3	-	(D)	-	(D)	(D)	(D)	(D)	-
1481	Nonmetallic minerals service:													
	Establishments.....number..	3	3	-	-	-	-	-	-	-	-	-	3	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	3	3	1	-	1	-	2	-	2	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	236	346	Cost of supplies, total.....million dollars..	20.0	22.6
With 0 to 19 employees.....do....	211	319	Supplies used, minerals received for preparation, and purchased machinery.....do....	13.5	(NA)
With 20 to 99 employees.....do....	22	22	Cost of resales.....do....	.4	(NA)
With 100 or more employees.....do....	3	5	Purchased fuels consumed.....do....	2.4	(NA)
All employees (average for year).....1,000..	2.4	3.1	Electric energy:		
Payroll (all employees), total for year.....million dollars..	16.8	17.0	Quantity purchased.....million kw.-hrs..	64.7	(NA)
Production, development, and exploration workers:			Cost.....million dollars..	1.2	(NA)
Average for the year.....1,000..	1.8	2.5	Generated less sold.....million kw.-hrs..	(Z)	(NA)
March.....do....	1.3	(NA)	Contract work.....million dollars..	2.5	2.2
May.....do....	2.0	(NA)	Value of shipments and receipts (including resales), total.....do....	50.3	54.7
August.....do....	2.2	(NA)	Value of resales.....do....	.5	(NA)
November.....do....	1.9	(NA)	Value added in mining.....do....	37.8	37.5
Man-hours.....millions..	4.0	5.0	Capital expenditures (except land and mineral rights), total.....do....	7.5	5.4
Wages.....million dollars..	12.7	13.2	Mineral development and exploration.....do....	.3	.2
Supplemental labor cost not included in payroll.....do..	1.7	(NA)	New structures and additions.....do....	1.0	5.2
Legally required expenditures, including Social Security contributions.....do..	1.3	(NA)	New machinery and equipment.....do....	5.4	
Payments for voluntary programs.....do..	.4	(NA)	Used plant and equipment.....do....	.7	
			Mineral development and exploration expenditures, total.....do....	.4	(NA)
			Capitalized.....do....	.3	.2
			Expensed.....do....	.1	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Wisconsin, total	236	25	2.4	16.8	1.8	4.0	12.7	37.8	20.0	50.3	7.5	3.1	37.5
	COUNTIES[2]													
	Dane county, total	18	1	.1	1.1	.1	.3	.9	2.2	1.1	2.5	.8	.2	1.2
14	Nonmetallic minerals, except fuel	18	1	.1	1.1	.1	.3	.9	2.2	1.1	2.5	.8	(D)	(D)
	Eau Claire county, total	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuel	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
144	Sand and gravel	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fond Du Lac county, total	8	1	.1	.6	.1	.2	.5	1.0	.3	1.2	.1	.1	.5
14	Nonmetallic minerals, except fuel	8	1	.1	.6	.1	.2	.5	1.0	.3	1.2	.1	.1	.5
	Lafayette county, total	7	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	.9
	Sauk county, total	8	2	.2	2.1	.1	.2	1.1	3.6	1.4	4.0	1.0	.2	2.7
14	Nonmetallic minerals, except fuel	8	2	.2	2.1	.1	.2	1.1	3.6	1.4	4.0	1.0	.2	2.7
144	Sand and gravel	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Waukesha county, total	33	3	.2	1.9	.2	.4	1.4	4.3	1.8	5.4	.8	.3	4.5
14	Nonmetallic minerals, except fuel	33	3	.2	1.9	.2	.4	1.4	4.3	1.8	5.4	.8	.3	4.5
144	Sand and gravel	26	1	.2	1.3	.1	.3	1.0	3.0	1.2	3.6	.6	.3	3.7
	Winnebago county, total	5	1	.1	1.1	.1	.3	.9	2.7	1.0	3.1	.5	.1	1.4
14	Nonmetallic minerals, except fuel	5	1	.1	1.1	.1	.3	.9	2.7	1.0	3.1	.5	.1	1.4
142	Crushed and broken stone	3	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Wisconsin, total	236	9	-	-	5	222
0 to 4 employees	113	2	-	-	3	108
5 to 9 employees	54	2	-	-	2	50
10 to 19 employees	44	1	-	-	-	43
20 to 49 employees	20	4	-	-	-	16
50 to 99 employees	2	-	-	-	-	2
100 tO 249 employees	3	-	-	-	-	3
Ashland county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Barron county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Brown county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Buffalo county, total	4	-	-	-	-	4
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	-	-	-	-	1
Calumet county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Clark county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Columbia county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Crawford county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Dane county, total	18	-	-	-	-	18
0 to 19 employees	17	-	-	-	-	17
20 to 99 employees	1	-	-	-	-	1
Dodge county, total	3	-	-	-	-	3
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	2	-	-	-	-	2
Door county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Douglas county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Dunn county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Eau Claire county, total	3	-	-	-	-	3
0 to 19 employees	2	-	-	-	-	2
100 to 249 employees	1	-	-	-	-	1
Fond Du Lac county, total	8	-	-	-	-	8
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	1	-	-	-	-	1
Grant county, total	4	1	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
20 to 99 employees	1	1	-	-	-	-
Green county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Green Lake county, total	9	-	-	-	-	9
0 to 19 employees	9	-	-	-	-	9
Iowa county, total	5	3	-	-	-	2
0 to 19 employees	4	3	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Iron county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Jackson county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Wisconsin-Continued						
Jefferson county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Juneau county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Kenosha county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
La Crosse county, total	4	-	-	-	1	3
0 to 19 employees	4	-	-	-	1	3
Lafayette county, total	7	5	-	-	-	2
0 to 19 employees	4	2	-	-	-	2
20 to 99 employees	3	3	-	-	-	-
Lincoln county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Manitowoc county, total	2	-	-	-	-	2
0 to 19 employees	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Marathon county, total	9	-	-	-	-	9
0 to 19 employees	9	-	-	-	-	9
Marinette county, total	1	-	-	-	-	1
20 to 99 employees	1	-	-	-	-	1
Marquette county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Milwaukee county, total	8	-	-	-	2	6
0 to 19 employees	6	-	-	-	2	4
20 to 99 employees	2	-	-	-	-	2
Monroe county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Outagamie county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Ozaukee county, total	6	-	-	-	-	6
0 to 19 employees	6	-	-	-	-	6
Pierce county, total	5	-	-	-	-	5
0 to 19 employees	5	-	-	-	-	5
Polk county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Portage county, total	4	-	-	-	-	4
0 to 19 employees	4	-	-	-	-	4
Racine county, total	11	-	-	-	-	11
0 to 19 employees	10	-	-	-	-	10
20 to 99 employees	1	-	-	-	-	1
Richard county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Rock county, total	8	-	-	-	-	8
0 to 19 employees	7	-	-	-	-	7
20 to 99 employees	1	-	-	-	-	1
Rusk county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
St Croix county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Sauk county, total	8	-	-	-	-	8
0 to 19 employees	6	-	-	-	-	6
20 to 99 employees	1	-	-	-	-	1
100 to 249 employees	1	-	-	-	-	1

See footnotes at end of table....

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Wisconsin -- continued						
Shawano county, total	3	-	-	-	-	3
0 to 19 employees	3	-	-	-	-	3
Sheboygan county, total	7	-	-	-	-	7
0 to 19 employees	7	-	-	-	-	7
Trempealeau county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Vernon county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Vilas county, total	2	-	-	-	-	2
0 to 19 employees	2	-	-	-	-	2
Walworth county, total	3	-	-	-	1	2
0 to 19 employees	3	-	-	-	1	2
Washington county, total	7	-	-	-	-	7
0 to 19 employees	7	-	-	-	-	7
Waukesha county, total	33	-	-	-	-	33
0 to 19 employees	30	-	-	-	-	30
20 to 99 employees	3	-	-	-	-	3
Waushara county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Winnebago county, total	5	-	-	-	-	5
0 to 19 employees	4	-	-	-	-	4
100 to 249 employees	1	-	-	-	-	1
Wood county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-877

1967 CENSUS OF Mineral Industries



MIC67(2)-49

AREA STATISTICS

WYOMING

Issued February 1971



U.S. DEPARTMENT OF COMMERCE **Maurice H. Stans,** Secretary
Rocco C. Siciliano, Under Secretary
Harold C. Passer, Assistant Secretary for Economic Affairs
BUREAU OF THE CENSUS **George Hay Brown,** Director

Contents

(Page numbers listed here omit the State prefix which appears as part of number for each page.)

		page
	Introduction	IV
	Map	1
TABLE 1	General Statistics: 1967 and Earlier Years	2
2A	General Statistics for Mineral Establishments, by Industries: 1967 and 1963	4
2B	General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963	5
3	Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967	6
4	Detailed Statistics: 1967 and 1963	7
5	General Statistics by County and Industry Groups: 1967 and 1963	8
6	Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967	10
APPENDIX	Explanation of Terms	A1

Introduction

GENERAL—This report from the 1967 Census of Mineral Industries is one of a series of area reports which provide statistics for each State and the District of Columbia. In addition to the area series, 14 separate industry or industry-group reports have been issued in the industry series. Reports on special subjects such as size of establishment and type of operation will be published in the subject series.

These separate reports will subsequently be included as portions of the final census volume. The volume, Census of Mineral Industries, will show comparative figures for industries and States on the more important measures of the activity of mining establishments, such as employment, payrolls, value of shipments, capital expenditures, value added in mining, selected materials consumed, and energy used, and will include the 14 reports of individual industries or industry groups. In addition, it will contain area general statistics (number of establishments, employment, payrolls, value added in mining, value of shipments, and capital expenditures) for each State and county, by industry groups and important individual industries.

The "Introduction" to the final volume of the Census of Mineral Industries will discuss at greater length many of the subjects described briefly in this introduction. For example, the volume text will discuss the economic significance of the mining sector; the relation of value added in mining to value added by manufacture; some of the changes in statistical concepts over the history of the census; the valuation problems arising from intracompany transfers between mining establishments of a company and between mining establishments, manufacturing plants, and sales offices and sales branches of a company.

The 1967 census is the 16th census of mineral industries of the United States. The first census of mineral industries covered 1840, and a census was taken at approximately 10-year intervals through 1939, usually in connection with the decennial census of population. A partial census covering the coal industries was conducted in 1935 in cooperation with the U.S. Bureau of Mines as part of the 1935 Census of Business. After World War II, the legislation was changed to provide for a census of mineral industries every 5 years (Title 13, U.S. Code). The minerals censuses which have been taken under this legislation have covered 1954, 1958, and 1963. The current legislation stipulates that the census be conducted covering years ending in "2" and "7." Thus, the next minerals census will be taken in 1973 covering mining activity during 1972.

The 1967 Census of Mineral Industries was conducted jointly with the censuses of business (wholesale, retail, and services) and manufactures, covering the United States, Guam, and the Virgin Islands. Separate censuses of manufactures and business for 1967 were also conducted in Puerto Rico jointly with the Commonwealth Government.

SCOPE OF THE CENSUS OF MINERAL INDUSTRIES: DEFINITION OF MINERAL INDUSTRIES—The 1967 Census of Mineral Industries covers all establishments primarily engaged in mining as defined in the 1967 edition of the *Standard Industrial Classification Manual.* This is the system of industrial classification developed over a period of years by experts on classification in government and private industry under the guidance of the Bureau of the Budget. This system of classification is in general use among government agencies and also outside the government. In 1957, the system was extensively revised although the changes for the mining industries were not very significant.

The *Standard Industrial Classification Manual* defines mining in the broad sense to include the extraction of minerals occurring naturally: Solids, such as coal and ores; liquids, such as crude petroleum; and gases, such as natural gas. The term "mining" is used in the broad sense to include quarrying, well operation, milling (crushing, screening, washing, flotation, etc.), and other preparation needed to render the mineral marketable. Exploration is included as is the development of mineral properties. Services performed on a contract, fee, or other basis in the development of mineral properties are classified separately but within this division.

Mining operations are classified by industry, on the basis of the principal mineral produced or if there is no production, on the basis of the principal mineral for which exploration or development work is in process. The recovery of material from culm banks, ore dumps, and other waste minerals piles is classified in the appropriate mining industry according to the mineral product recovered.

The crushing, grinding, or other treatment of certain earths, rocks, and other nonmetallic minerals not in conjunction with mining activities are not included in this division, but are classified as manufacturing. Hauling and other transportation beyond the mine property and contract hauling (except out of open pits in conjunction with mining) are also excluded.

Statistics on mining operations which are carried on as secondary activities at manufacturing establishments (such as clay pits at clay products plants or sand and gravel operations at ready-mixed concrete plants) are not within the scope of this census. However, selected data (production workers' wages and man-hours; total cost of supplies, fuels, electric energy, and contract work; and quantity of production for mined products) on mining activities at these operations has been obtained in the 1967 Census of Manufactures and are included in the mining reports. Wherever these data are included, they are clearly specified.

ESTABLISHMENT BASIS OF REPORTING—The census of mineral industries is conducted on an establishment basis. That is, a company with operations at more than one location is required to submit a report for each location; also, companies engaged in distinctly different lines of activity at one location are required to submit separate reports if company records permit such a separation and if the activities are substantial in size.

Census tabulations of establishment reports differ substantially from those prepared on a company basis; that is, from consolidated reports which not only combine activities at different locations (thereby eliminating interplant transfers) but also include the manufacturing and business activities of companies primarily engaged in mining.

Operating companies were instructed that a mineral establishment, for purposes of the census report, is generally defined as a single physical location where mineral operations are conducted; for example, a mine only, a mine and preparation plant, or a preparation plant only. An establishment in this census, in general, represents workings at a given locality in which operations are conducted as a unit or are unified by common management or joint handling of some part of the mining or preparation process. Individual shafts, openings, or pits, however, are not necessarily considered individual establishments.

For oil and gas field operation and contract services, reports were required for units somewhat different from the "establishment" reporting unit used for other types of mining. Every concern which operated oil and gas wells, drilled such wells for its own account or for others, performed oil and gas field services for others during any part of calendar year 1967 was required to submit a separate report for each State, or for each district within Texas, Louisiana, New Mexico, and California (however, information on employment, oil and gas production, and capital expenditures was requested by county). Further, concerns which supplied contract services for others were required to submit a separate report for each State. (In this instance also, information on employment, receipts for services, and capital expenditures was requested by county.)

In 1967, as in recent census years, a minimum size limit was set for including establishments in the census. Data were included for all establishments employing one person or more at any time during the census year. For the first time in 1967, single-unit establishments without paid employees were excluded; however, these establishments for mining as a whole accounted for approximately 1 or 2 percent of value added. In the 1963, 1958, and 1954 censuses, establishments without paid employees were included if value of shipments or expenditures amounted to $500 or more. In the 1939 and 1929 censuses, in general, criteria similar to that used in 1963, 1958, and 1954 were applied except that the cutoff for shipment or expenditures was $2,500. For 1919, the criteria used were $500 on value of products, and $5,000 on expenditures for development work. Minimums for size of establishment included were not provided for censuses prior to 1919. These changes in the minimum size limit do not appreciably affect the historical comparability of the census figures except for statistics on number of establishments.

The production of minerals, particularly stone, sand, and gravel, by Federal, State, and local governments is excluded from the census. Also excluded is some production of these items by highway and construction contractors who do not maintain separate records for sand and gravel production. The census includes, however, mining establishments operated entirely to serve other establishments of the same company, such as coal mines serving only coke ovens operated by the same company, oil and gas wells serving only refineries or public utilities owned by the same company, and copper mines and treatment plants where all of the ore is transferred to a company-owned smelter.

THE CENSUS REPORT FORMS—The 1967 Census of Mineral Industries was primarily a mail canvass; whereas the 1963, 1958, and 1954 censuses were completely on a mail basis. Ten different report forms were used to canvass the 53 mining industries.

From the administrative records of the Social Security Administration and existing Bureau of the Census records, it was possible to determine correctly, in most cases, the type of form each mining establishment should receive.

In the 1967 census, for the first time, approximately 10,000 single-unit establishments with one to four employees were excused from filing reports. Under special arrangements which safeguarded the confidentiality of both tax and census records, limited data on payrolls, sales, and industry classification from the administrative records of the Social Security Administration and the Internal Revenue Service were made available to the Census Bureau for use in the 1967 censuses of business, manufactures, and mineral industries. Estimates for data other than payrolls and sales for these small establishments were constructed from industry averages. The effect on industry aggregates is slight in most industries. For mining as a whole, they account for less than 1 percent of value added.

INDUSTRY AND TYPE-OF-OPERATION CLASSIFICATIONS OF ESTABLISHMENT—Each of the establishments covered in the census was classified in one of 53 mineral industries in accordance with the industry definitions in the Standard Industrial Classification (SIC) system. Under this system of classification, an industry is generally defined as a group of establishments producing a single product or a more or less closely related group of products. The resulting group of establishments must be significant in terms of their number, value added in mining, value of shipments, and number of employees. The application of these criteria has led to the establishment of 53 mining industries. For each industry, a 4-digit number is assigned. The classification system also provides broader groups of industries, with 20 3-digit groups and 5 2-digit groups. Within industries, the system provides for 7-digit products and 5-digit product classes. These are considered the primary products of the industry if the product code begins with the same first four digits as the industry code. An establishment is classified in a particular industry if its production of the primary products of that industry exceeds in value its production of products of any other single industry. (For service industries, the classification is on the basis of receipts for services performed.)

As in earlier censuses, a number of small establishments may have been misclassified as to industry. However, such possible misclassifications have no significant effect on the statistics other than the number of establishments. As indicated above, report forms were not mailed to very small establishments (less than five employees). The industry classifications for these establishments were assigned on the basis of brief descriptions of the general activity of the establishment. Where the description is incomplete or there are relatively fine lines of demarcation between industries or between manufacturing and nonmanufacturing activity, the code assigned to an establishment could differ from that which would have been assigned on the basis of more complete product information. Therefore, the total establishment count should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 or more employees are far more reliable than the total number of establishments.

While some establishments produce only the primary products of the industry in which they are classified, it rarely happens that all the establishments in an industry specialize to this extent. The general statistics shown for an industry, therefore, reflect not only the primary activities of an establishment in that industry but also its activities of a secondary nature.

In most industries, establishments making products falling into the same industry category use a variety of processes. Separate statistics are provided on the various types of operation. Wherever possible, separate figures are shown for establishments using underground mining methods only, using open-pit methods

only, and using a combination of underground and open-pit methods. For selected industries, separate statistics are provided by type of underground mining, such as for establishments having as the dominant method open stoping, shrinkage stoping, square setting, or block caving. Separate figures are provided, where possible, for mines with and without preparation plants, for establishments with preparation plants only, and for establishments with preparation plants classified by the dominant preparation method, such as crushing, washing, flotation, or gravity concentration. Separate statistics are also provided on producing and nonproducing operations; an establishment being defined as nonproducing if no mineral products were shipped during the year. For the crude petroleum and natural gas industries, details were obtained on the type of wells drilled and operated and reports were classified on the basis of whether they represented only oil wells, both oil and gas wells, or only gas wells, and on the basis of whether or not they drilled wells.

CONFIDENTIALITY OF DATA FOR INDIVIDUAL COMPANIES—The Bureau of the Census is prohibited by law from publishing any statistics that disclose information reported by individual companies. In suppressing figures to avoid disclosing information of individual companies, geographic region and division totals are given precedence over individual States and States are given precedence over counties. In tables showing industry detail, major industry group (2-digit) totals take precedence over industry group (3-digit) totals which, in turn, take precedence over individual (4-digit) industries. Similarly, in product tables, 4-digit product groupings take precedence over 5-digit product classes and the latter over individual 7-digit products.

Such order of precedence was used because it was considered preferable to show (1) regional figures for an industry, even at the cost of withholding figures for some States (usually the least significant) in a region, rather than to show all publishable figures for the individual States, and group all "disclosure" States in the United States in an "all other" category as was done in the 1939 and earlier censuses; and (2) industry group statistics rather than individual industries within each State; thus, the extent to which individual States can be compared within the SIC industry classification framework is greatly increased.

For industries with few establishments or considerable geographic concentration, it has frequently been necessary to use geographic regions broader than the traditional nine census divisions, in order to show all establishments by some geographic grouping. For this purpose, the following combinations of census divisions have been used:

NORTHEAST	SOUTH
New England	South Atlantic
Middle Atlantic	East South Central
	West South Central
NORTH CENTRAL	WEST
East North Central	Mountain
West North Central	Pacific

ABBREVIATIONS—The following abbreviations and symbols occur frequently, both in the tables and footnotes:

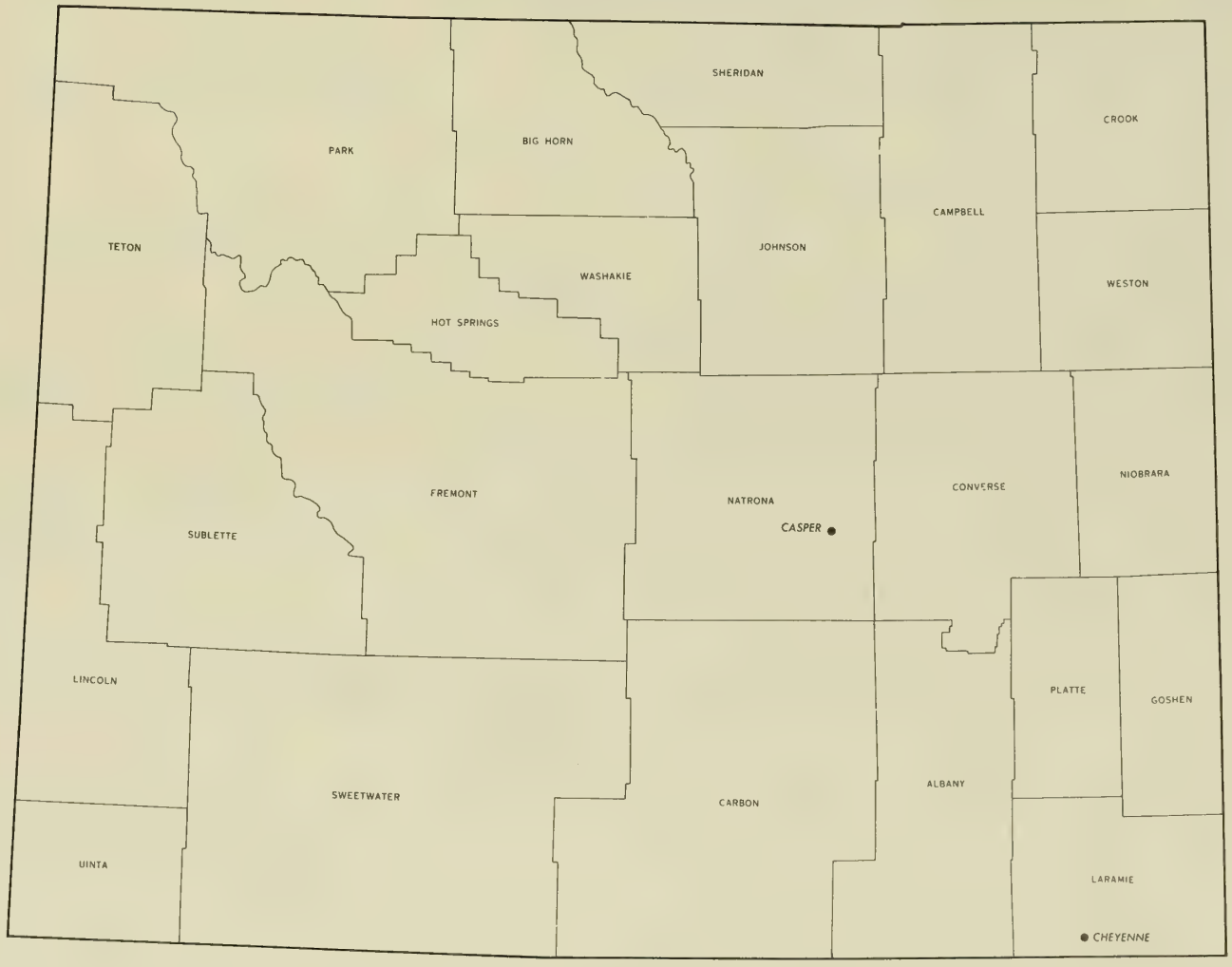
—	zero
X	not applicable
NA	not available
D	withheld to avoid disclosing figures for individual companies
n.e.c.	not elsewhere classified
n.s.k.	not specified by kind
kw.-hrs.	kilowatt-hours
equiv.	equivalent
SIC	Standard Industrial Classification

Other abbreviations, such as lb., gal., and bbl., are used in the customary sense. Where the term "tons" only is used, it refers to short tons of 2,000 lbs.; where the figures are expressed in tons of 2,240 lbs., the unit of measure is specified as "long tons."

The 1963 figures shown in the industry reports include a few revisions of previously published 1963 census totals and are comparable with the 1967 figures unless otherwise noted.

WYOMING

Incorporated places of 25,000-100,000 ●



U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

TABLE 1. General Statistics: 1967 and Earlier Years

(See appendix, Explanation of Terms)

Kind of operation and year	Establishments		All employees		Production, development, and exploration workers			Value added in mining
	Total (number)	With 20 employees or more (number)	Total (1,000)	Payroll (million dollars)	Total (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)
Mineral industries only:								
1967	[1]447	99	8.7	64.8	6.8	14.3	47.2	501.8
1963	[1]532	101	8.7	60.9	6.6	14.1	43.8	453.1
1958	489	86	8.5	48.5	6.0	11.9	30.6	342.4
1954	483	101	9.7	45.7	7.5	14.6	32.4	[2]258.2
Including operations in manufactures:								
1967	455	99	8.7	64.9	6.8	14.3	47.3	502.1
1963	541	101	8.7	61.1	6.7	14.2	43.9	453.8
1958	501	86	8.6	48.7	6.0	12.0	30.8	343.2
1954[3]	487	101	9.7	45.8	7.5	14.6	32.5	[2]258.5
1939	[4]188	(NA)	6.8	10.4	6.2	10.2	8.8	32.7
1919[5]	121	(NA)	10.4	16.2	9.8	(NA)	14.7	33.1
1909[5]	130	(NA)	8.2	7.0	7.9	(NA)	6.4	8.6
1902[6]	[4]150	(NA)	5.0	4.0	[7]4.8	(NA)	4.8	4.6
Excluding oil and gas extraction industries:								
1967	95	35	3.6	26.5	2.9	6.1	20.5	94.6
1963	130	41	3.5	22.8	2.7	5.9	17.5	84.4
1958	145	23	2.5	12.3	2.0	3.8	9.6	44.0
1954[3]	117	24	2.6	10.2	2.3	3.9	8.7	32.2
1939	[3]90	(NA)	4.8	6.6	4.5	6.5	5.9	10.9
1929[8]	66	(NA)	5.6	10.4	5.4	(NA)	9.8	15.9
1919[5]	71	(NA)	7.9	12.0	7.5	(NA)	11.1	16.5
1909[5]	116	(NA)	8.2	6.9	7.9	(NA)	6.4	8.8

Kind of operation and year	Selected expenses				Value of shipments and receipts[9] (million dollars)	Capital expenditures (million dollars)	Energy used (kw.-hrs. equivalent) (billions)
	Supplies, fuels, purchases for resale, and purchased electric energy (million dollars)	Minerals received for preparation (million dollars)	Contract work (million dollars)	Purchased machinery installed (million dollars)			
Mineral industries only:							
1967	[10]164.1	([10])	50.4	([10])	625.9	90.4	(NA)
1963	[11]107.4	([11])	49.9	26.5	560.6	76.3	10.1
1958	43.8	16.4	49.7	18.7	404.9	66.1	7.2
1954	43.4	[12]1.4	56.1	25.3	[2]313.0	71.5	9.5
Including operations in manufactures:							
1967	[13]164.2	([13])	([13])	([13])	626.2	(NA)	(NA)
1963	[11] [14]107.6	([11])	[14]49.9	[15]26.5	561.5	[15]76.3	[15]10.1
1958	[14]43.9	16.4	[14]49.7	[15]18.7	405.9	[15]66.1	[15]7.2
1954[3]	[14]43.8	[12]1.4	[14]56.1	[15]25.3	313.7	[15]71.5	[15]9.5
1939	3.0	(NA)	3.2	(NA)	38.9	(NA)	1.9
1919[5]	7.9	[16].1	.8	(NA)	41.9	(NA)	[17]2.7
1909[5]	1.9	-	.1	(NA)	10.6	(NA)	(NA)
1902[6]	1.0	(NA)	.1	(NA)	5.7	(NA)	(NA)
Excluding oil and gas extraction industries:							
1967	[13]50.7	([13])	([13])	([13])	123.1	(NA)	(NA)
1963	[11] [14]37.3	([11])	[14]6.6	[15]4.3	125.7	[15]6.7	[15]2.3
1958	[14]10.3	11.5	[14]10.6	[15]2.6	66.6	[15]12.3	1.2
1954[3]	[14]7.0	.3	[14]2.4	[15]1.0	[2]41.8	[15]1.1	[15]1.4
1939	2.2	(NA)	(Z)	(NA)	13.1	(NA)	.9
1929[8]	2.9	(NA)	(Z)	.6	18.8	(NA)	1.4
1919[5]	3.4	-	.1	(NA)	20.0	(NA)	[17]1.8
1909[5]	1.7	-	.1	(NA)	10.6	(NA)	(NA)

Note: For more detailed historical statistics for this State, see table 1 of the corresponding chapter of the 1954 Census of Mineral Industries, Vol. II. For all years prior to 1939, excludes contract service operations.

Footnotes continued on next page.

TABLE 1. General Statistics: 1967 and Earlier Years—Continued

Footnotes for table 1--Wyoming--Continued

Standard Notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (X) Not applicable.

[1] In 1967, for the first time data for single unit establishments without paid employees were excluded from the census. In 1963, there were 73 single unit establishments without paid employees in this State. In the 1963 census establishments without paid employees for mining as a whole accounted for approximately 3 percent of value added.

[2] Excludes data for the Uranium-Radium-Vanadium Ores Industry.

[3] Excludes data for sand and gravel mining operations in manufacturing establishments.

[4] Represents number of mines and quarries, number of natural gas liquids plants, and for the crude petroleum and natural gas and mining services industries, number of operating companies.

[5] Excludes data for sand, gravel, common clay, and shale operations and stone quarries operated as parts of cement plants. There were 3 such sand, gravel, common clay, and shale mines in 1939, with products valued at $56 thousand. For 1929, only one sand and gravel establishment, and one stone quarry at a cement plant, was reported. For "Excluding oil and gas extraction industries" in 1909, except for number of establishments, includes data for 7 nonproducing crude petroleum and natural gas establishments. For 1902, only 2 oil and gas extraction operations were replaced, hence, figures cannot be shown excluding such operations.

[6] Includes data for lime plants producing lime valued at $2 thousand. See also footnote 5.

[7] Figures for average employment were converted to a 300-day basis for establishments which operated for a shorter period.

[8] Excludes data for common clay and shale mines. Only one such mine was reported for 1939.

[9] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments, includes the estimated value of minerals produced and used in the same establishment in making manufactured products. For 1967, 1963, 1958, 1954, 1919, and 1909, represents gross value of shipments (or production for 1919 and 1909) and contains some duplication due to the transfer of crude minerals from one establishment to another for preparation. The approximate magnitude of this duplication is indicated by the figures shown for cost of minerals received for preparation. For other years, represents net production and excludes this duplication. For years prior to 1958, excludes the value of residue gas from natural gas liquids plants.

[10] Data for minerals received for preparation and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[11] Figures for minerals received for preparation are included with those for supplies, purchases for resale, and purchased fuels and electric energy.

[12] Excludes the cost of natural gas processed at natural gas liquids plants, but includes the estimated value prior to processing of natural gas liquids contained in such gas.

[13] Data for minerals received for preparation, contract work, and purchased machinery installed are included with supplies, purchases for resale, and purchased fuels and electric energy.

[14] For crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments the cost of contract work is included with the cost of supplies, purchases for resale, and purchased fuels and electric energy.

[15] Excludes data for crushed and broken stone, sand and gravel, and clay mining operations in manufacturing establishments.

[16] Represents natural gas purchased for use as a material and for resale.

[17] Excludes purchased electric energy. For 1929, the quantity of purchased electric energy amounted to only one percent of the total kw.-hrs. equivalent of energy used.

TABLE 2A. General Statistics for Mineral Establishments, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total (number)	With 20 employees or more (number)	Number (1,000)	Payroll (million dollars)	Number (1,000)	Man-hours (millions)	Wages (million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	All mineral operations[1]	447	99	8.7	64.8	6.8	14.3	47.2	501.8	214.5	625.9	90.4	8.7	453.1
10	Metal mining	33	13	1.9	13.6	1.6	3.3	10.7	45.9	27.0	61.8	11.1	1.8	51.5
1011	Iron ores	2	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.6	11.4
1081	Metal mining services	14	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	17	7	.8	6.2	.7	1.5	5.0	27.2	16.6	34.2	9.5	(D)	(D)
1094	Uranium-radium-vanadium ores	16	7	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	1.0	36.8
12	Bituminous coal and lignite mining	17	8	.4	2.6	.3	.6	2.3	9.8	3.7	12.9	.5	.4	7.3
121	Bituminous coal and lignite mining	17	8	.4	2.6	.3	.6	2.3	9.8	3.7	12.9	.5	(D)	(D)
1211	Bituminous coal	16	7	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.3	6.2
1213	Bituminous & lignite mining services, n.e.c.	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	1.1
13	Oil and gas extraction	360	64	5.1	38.4	3.7	8.0	26.8	407.5	163.9	503.1	68.3	5.3	369.4
131	Crude petroleum and natural gas	149	25	2.1	18.2	1.2	2.4	9.5	359.5	102.2	399.7	61.9	2.9	334.3
1321	Natural gas liquids	19	3	.3	2.0	.2	.5	1.9	9.0	40.2	48.5	.8	.2	8.6
138	Oil and gas field services	192	36	2.8	18.2	2.3	5.1	15.4	39.0	21.5	55.0	5.6	2.1	26.5
1381	Drilling oil and gas wells	52	14	1.1	7.8	1.0	2.2	6.9	13.7	13.2	24.3	2.6	1.3	16.0
1382	Oil and gas exploration services	24	2	.3	1.3	.2	.5	1.1	3.1	1.0	3.7	.4	.2	2.4
1389	Oil and gas field services, n.e.c.	116	20	1.4	9.1	1.2	2.6	7.4	22.2	7.3	27.0	2.5	.7	8.0
14	Nonmetallic minerals, except fuels	37	14	1.4	10.2	1.0	2.3	7.5	38.6	19.9	48.1	10.4	1.3	24.9
142	Crushed and broken stone	5	1	.1	.5	.1	.2	.5	1.1	.3	1.3	.1	.1	1.3
1422	Crushed and broken limestone	4	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	12	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1452	Bentonite	12	9	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	6	3	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1474	Potash, soda, and borate minerals	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
1475	Phosphate rock	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Industries and industry groups with less than 50 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 50 or more employees which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

BB - 50-99 employees
CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 2B. General Statistics for Manufacturing Establishments With Mining Operations, by Industries: 1967 and 1963

(See appendix, Explanation of Terms)

Code	Industry	1967											1963	
		Establishments		All employees		Production, development and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number[1]	Payroll[1]	Number[1]	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
14	Nonmetallic minerals, except fuels	8	-	(Z)	0.1	(Z)	(Z)	0.1	0.3	0.1	0.3	(NA)	(Z)	0.7

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

[1] For crushed and broken stone, sand, and gravel, and clay mining operations in manufacturing establishments, the number of production, development, and exploration workers was estimated from reported figures for man-hours. No data were obtained on other employees at such operations; hence the same employment and payroll figures are included for all employees as for production, development, and exploration workers. Value of shipments and receipts data is an estimate based on mineral products produced, whether sold, transferred, added to inventories, or used in further processing.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Wyoming:													
	Establishments.....number..	447	431	129	15	7	107	41	9	29	3	19	242	16
	Employees.....1,000..	8.7	8.5	2.0	(D)	(D)	(D)	2.9	(D)	1.4	(D)	.3	3.4	.2
	Value added in mining..mil.dol..	501.8	504.4	361.0	(D)	(D)	(D)	89.4	(D)	38.2	(D)	9.0	45.0	-2.6
10	Metal mining:													
	Establishments.....number..	33	31	10	8	2	-	7	3	3	1	-	14	(Z)
	Employees.....1,000..	(D)	(D)	(D)	(D)	(D)	-	1.3	(D)	(D)	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	45.9	(D)	(D)	(D)	(D)	-	43.9	(D)	(D)	(D)	-	(D)	(D)
1011	Iron ores:													
	Establishments.....number..	2	2	-	-	-	-	2	1	1	-	-	-	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	-	-	-
1081	Metal mining services:													
	Establishments.....number..	14	14	-	-	-	-	-	-	-	-	-	14	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
109	Miscellaneous metal ores:													
	Establishments.....number..	17	15	10	8	2	-	5	2	2	1	-	-	2
	Employees.....1,000..	.8	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	-	(D)
	Value added in mining..mil.dol..	27.2	(D)	(D)	(D)	(D)	-	(D)	(D)	(D)	(D)	-	-	(D)
12	Bituminous coal and lignite mining:													
	Establishments.....number..	17	17	7	7	-	-	9	2	7	-	-	1	-
	Employees.....1,000..	.4	.4	(D)	(D)	-	-	.2	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	9.8	9.8	(D)	(D)	-	-	8.3	(D)	(D)	-	-	(D)	-
121	Bituminous coal and lignite mining:													
	Establishments.....number..	17	17	7	7	-	-	9	2	7	-	-	1	-
	Employees.....1,000..	.4	.4	(D)	(D)	-	-	.2	(D)	(D)	-	-	(D)	-
	Value added in mining..mil.dol..	9.8	9.8	(D)	(D)	-	-	8.3	(D)	(D)	-	-	(D)	-
13	Oil and gas extraction:													
	Establishments.....number..	360	347	107	-	-	107	-	-	-	-	19	221	13
	Employees.....1,000..	5.1	(D)	(D)	-	-	(D)	-	-	-	-	.3	3.0	(D)
	Value added in mining..mil.dol..	407.5	(D)	(D)	-	-	(D)	-	-	-	-	9.0	39.6	(D)
131	Crude petroleum and natural gas:													
	Establishments.....number..	154	137	107	-	-	107	-	-	-	-	-	30	13
	Employees.....1,000..	2.2	(D)	(D)	-	-	(D)	-	-	-	-	-	.3	(D)
	Value added in mining..mil.dol..	360.1	(D)	(D)	-	-	(D)	-	-	-	-	-	1.2	(D)
1321	Natural gas liquids:													
	Establishments.....number..	19	19	-	-	-	-	-	-	-	-	19	-	-
	Employees.....1,000..	.3	.3	-	-	-	-	-	-	-	-	.3	-	-
	Value added in mining..mil.dol..	9.0	9.0	-	-	-	-	-	-	-	-	9.0	-	-
138	Oil and gas field services:													
	Establishments.....number..	191	191	-	-	-	-	-	-	-	-	-	191	-
	Employees.....1,000..	2.7	2.7	-	-	-	-	-	-	-	-	-	2.7	-
	Value added in mining..mil.dol..	38.4	38.4	-	-	-	-	-	-	-	-	-	38.4	-
14	Nonmetallic minerals, except fuels:													
	Establishments.....number..	37	36	5	-	5	-	25	4	19	2	-	6	1
	Employees.....1,000..	(D)	(D)	(Z)	-	(Z)	-	1.3	(D)	.5	(D)	-	(D)	(D)
	Value added in mining..mil.dol..	38.6	(D)	.6	-	.6	-	37.2	(D)	11.1	(D)	-	(D)	(D)
142	Crushed and broken stone:													
	Establishments.....number..	5	5	-	-	-	-	5	1	4	-	-	-	-
	Employees.....1,000..	.1	.1	-	-	-	-	.1	(D)	(D)	-	-	-	-
	Value added in mining..mil.dol..	1.1	1.1	-	-	-	-	1.1	(D)	(D)	-	-	-	-
144	Sand and gravel:													
	Establishments.....number..	8	8	1	-	1	-	3	-	1	2	-	4	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	(D)	-	(Z)	-
	Value added in mining..mil.dol..	.4	.4	(D)	-	(D)	-	(D)	-	(D)	(D)	-	.1	-
145	Clay and related minerals:													
	Establishments.....number..	12	12	2	-	2	-	10	-	10	-	-	-	-
	Employees.....1,000..	(D)	(D)	(D)	-	(D)	-	.3	-	.3	-	-	-	-
	Value added in mining..mil.dol..	(D)	(D)	(D)	-	(D)	-	7.3	-	7.3	-	-	-	-

See footnotes at end of table.

TABLE 3. Selected Statistics for Mineral Industries, by Type of Operation and Industry Groups: 1967—Continued

(See appendix, Explanation of Terms)

Code	Industry group or industry and item	All types of establishments, total	Producing establishments										Nonproducing establishments
			Total	Mines only				Mines with preparation plants				Separately operated preparation plants	Undistributed[1]	
				Total	Underground mines	Open-pit mines	Combination methods, well operations, and other methods	Total	Underground mines	Open-pit mines	Combination methods and other methods			
	Wyoming -- Continued													
14	Nonmetallic minerals, except fuels--continued													
147	Chemical and fertilizer minerals:													
	Establishments.....number..	6	5	-	-	-	-	5	3	2	-	-	-	1
	Employees.....1,000..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	-	-	(D)
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	(D)	(D)	(D)	-	-	-	(D)
1481	Nonmetallic minerals services:													
	Establishments.....number..	2	2	-	-	-	-	-	-	-	-	-	2	-
	Employees.....1,000..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
	Value added in mining..mil.dol..	(D)	(D)	-	-	-	-	-	-	-	-	-	(D)	-
149	Miscellaneous nonmetallic minerals:													
	Establishments.....number..	4	4	2	-	2	-	2	-	2	-	-	-	-
	Employees.....1,000..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-
	Value added in mining..mil.dol..	(Z)	(Z)	(D)	-	(D)	-	(D)	-	(D)	-	-	-	-

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.
[1] Includes data for central administrative offices and auxiliary units in addition to plants where it was not possible to classify the plant based on the information available.

TABLE 4. Detailed Statistics: 1967 and 1963

(See appendix, Explanation of Terms)

Item	1967	1963	Item	1967	1963
Establishments, total.....number..	447	532	Cost of supplies, total.....million dollars..	214.5	183.8
With 0 to 19 employees.....do....	348	431	Supplies used, minerals received for preparation, and purchased machinery.....do....	144.8	(NA)
With 20 to 99 employees.....do....	80	85	Cost of resales.....do....	1.0	(NA)
With 100 or more employees.....do....	19	16	Purchased fuels consumed.....do....	8.4	(NA)
All employees (average for year).....1,000..	8.9	8.7	Electric energy:		
			Quantity purchased.....million kw.-hrs..	880.9	(NA)
Payroll (all employees), total for year.....million dollars..	66.8	60.9	Cost.....million dollars..	9.9	(NA)
			Generated less sold.....million kw.-hrs..	165.4	(NA)
Production, development, and exploration workers:			Contract work.....million dollars..	50.4	49.9
Average for the year.....1,000..	6.8	6.6	Value of shipments and receipts (including resales), total.....do....	625.9	560.6
March.....do....	6.6	(NA)	Value of resales.....do....	1.5	(NA)
May.....do....	6.5	(NA)			
August.....do....	7.0	(NA)	Value added in mining.....do....	501.8	453.1
November.....do....	7.2	(NA)			
			Capital expenditures (except land and mineral rights), total.....do....	90.4	76.3
Man-hours.....millions..	14.3	14.1	Mineral development and exploration.....do....	38.1	40.6
			New structures and additions.....do....	10.0	35.7
Wages.....million dollars..	47.2	43.8	New machinery and equipment.....do....	41.0	
			Used plant and equipment.....do....	1.2	
Supplemental labor cost not included in payroll.....do..	7.4	(NA)			
			Mineral development and exploration expenditures, total.....do....	55.4	(NA)
Legally required expenditures, including Social Security contributions.....do..	3.4	(NA)	Capitalized.....do....	38.1	40.6
Payments for voluntary programs.....do..	4.0	(NA)	Expensed.....do....	17.3	(NA)

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available.
(Z) Less than $50 thousand or 50 employees.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Wyoming, total	447	99	8.7	64.8	6.8	14.3	47.2	501.8	214.5	625.9	90.4	8.7	453.1
	COUNTIES[2]													
	Big Horn county, total	36	3	.3	2.1	.2	.5	1.4	19.4	6.1	23.2	2.2	.3	25.8
13	Oil and gas extraction	33	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	3	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Campbell county, total	73	9	.7	4.2	.6	1.2	3.3	24.4	16.4	32.7	8.2	.5	17.9
13	Oil and gas extraction	72	8	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	28	8	.6	3.4	.5	1.0	2.8	6.0	5.4	10.5	1.0	(D)	(D)
	Carbon county, total	42	3	.3	2.3	.3	.6	1.9	8.3	18.8	21.8	5.3	.4	16.3
10	Metal mining	5	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.2	7.0
109	Miscellaneous metal ores	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	33	1	.1	.8	.1	.2	.5	9.3	(D)	20.1	(D)	(D)	(D)
	Converse county, total	30	3	.2	1.6	.2	.4	1.4	16.6	4.4	20.1	.8	.2	15.6
13	Oil and gas extraction	26	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.1	11.8
	Crook county, total	42	7	.3	1.8	.2	.5	1.4	12.0	4.6	15.5	1.1	.3	11.9
13	Oil and gas extraction	35	2	.1	.7	.1	.2	.5	8.5	2.5	10.1	1.0	.2	9.9
14	Nonmetallic minerals, except fuels	6	5	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
145	Clay and related minerals	5	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Fremont county, total	62	10	1.6	11.8	1.3	2.6	8.9	80.7	34.0	97.1	17.5	1.7	73.3
10	Metal mining	14	7	1.3	9.5	1.0	2.1	7.1	40.5	17.4	51.2	6.7	1.3	34.7
101	Iron ores	1	1	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
109	Miscellaneous metal ores	9	5	.6	4.9	.5	1.2	3.9	28.9	9.2	32.7	5.5	.7	26.0
13	Oil and gas extraction	47	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas	24	1	.1	.8	.1	.1	.6	36.2	10.9	36.6	10.5	(D)	(D)
138	Oil and gas field services	20	2	.2	1.1	.1	.3	.9	2.3	.9	3.0	.2	(D)	(D)
	Hot Springs county, total	32	2	.2	1.6	.1	.3	.9	30.0	4.9	33.5	1.4	.3	38.3
13	Oil and gas extraction	29	2	.2	1.5	.1	.3	.9	29.9	4.9	33.4	1.4	.3	38.2
131	Crude petroleum and natural gas	15	2	.1	1.1	.1	.1	.5	28.9	4.5	32.2	1.3	.2	37.0
	Johnson county, total	20	4	.2	1.8	.2	.4	1.6	23.6	5.5	24.7	4.4	.1	17.2
13	Oil and gas extraction	18	4	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
138	Oil and gas field services	8	3	.2	1.2	.1	.3	1.0	2.0	1.0	2.7	.3	(D)	(D)
	Lincoln county, total	16	6	.4	2.6	.3	.6	2.2	11.8	18.6	29.2	1.2	.3	8.7
12	Bituminous coal and lignite, mining	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
121	Bituminous coal and lignite mining	4	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
14	Nonmetallic minerals, except fuels	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Natrona county, total	145	26	1.8	14.2	1.0	2.2	7.0	80.2	27.6	98.2	9.6	1.8	41.3
10	Metal mining	9	3	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
108	Metal mining services	7	2	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
13	Oil and gas extraction	133	23	1.6	13.3	.9	2.0	6.3	79.0	25.8	96.1	8.8	(D)	(D)
131	Crude petroleum and natural gas	50	13	.9	8.3	.3	.6	2.4	68.8	17.6	79.5	6.9	1.0	32.4
138	Oil and gas field services	81	9	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)

See footnotes at end of table.

TABLE 5. General Statistics by County and Industry Groups: 1967 and 1963—Continued

(See appendix, Explanation of Terms)

Code	County and industry group	1967											1963	
		Establishments[1]		All employees		Production, development, and exploration workers			Value added in mining	Cost of supplies, etc., and purchased machinery installed	Value of shipments and receipts	Capital expenditures	All employees	Value added in mining
		Total	With 20 employees or more	Number	Payroll	Number	Man-hours	Wages						
		(number)	(number)	(1,000)	(million dollars)	(1,000)	(millions)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(million dollars)	(1,000)	(million dollars)
	Wyoming--Continued													
	COUNTIES[2]-- continued													
	Park county, total.....	58	8	.5	3.9	.4	.9	3.0	83.2	23.6	97.6	9.2	.5	84.0
13	Oil and gas extraction.....	57	8	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	.4	84.0
131	Crude petroleum and natural gas.....	28	3	.2	1.8	.1	.3	1.2	79.5	20.4	91.3	8.6	.2	81.0
138	Oil and gas field services..	28	4	.3	1.7	.3	.5	1.5	3.0	1.2	3.7	.6	(D)	(D)
	Platte county, total.....	5	2	EE	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
10	Metal mining.....	2	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
101	Iron ores.....	1	1	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Sublette county, total.....	28	3	.2	1.6	.1	.3	1.1	17.8	6.6	19.7	4.6	.3	26.8
13	Oil and gas extraction.....	27	3	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	15	2	.1	1.0	.1	.1	.6	16.5	5.3	17.3	4.5	.1	23.5
	Sweetwater county, total.....	56	8	1.1	8.6	.8	1.6	6.3	56.8	21.5	60.7	17.6	1.0	45.2
13	Oil and gas extraction.....	48	4	CC	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
131	Crude petroleum and natural gas.....	25	3	.1	1.0	.1	.2	.7	26.5	8.0	27.4	7.1	.2	26.4
138	Oil and gas field services..	22	1	.1	.9	.1	.2	.8	2.4	1.1	3.3	.2	(D)	(D)
14	Nonmetallic minerals, except fuels.....	4	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
147	Chemical and fertilizer minerals.....	3	2	FF	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
	Washakie county, total.....	29	2	.1	.9	.1	.2	.8	10.0	7.1	13.5	3.5	.2	10.3
13	Oil and gas extraction.....	29	2	.1	.9	.1	.2	.8	10.0	7.1	13.5	3.5	.2	10.3
	Weston county, total.....	65	5	.3	1.8	.2	.5	1.4	8.1	4.5	11.2	1.4	.3	9.0
13	Oil and gas extraction.....	59	2	.2	1.2	.2	.3	.9	5.8	3.2	7.7	1.3	.2	7.3
131	Crude petroleum and natural gas.....	36	1	.1	.6	.1	.2	.4	4.5	2.5	5.8	1.1	(Z)	(NA)
138	Oil and gas field services..	23	1	.1	.6	.1	.2	.5	1.4	.6	1.9	.1	.2	1.6

Note: For 1963, county industry detail for total employment may not add to county totals because of the inclusion of central administrative employees and payroll in the county total but not in the county industry detail.

Standard notes: - Represents zero. (D) Withheld to avoid disclosing figures for individual companies. (NA) Not available. (Z) Less than $50 thousand or 50 employees.

[1] Companies which operated oil and gas wells, drilled such wells for its own account or for others, performed exploration work for oil and gas, or performed oil and gas field services for others were required to submit a separate report for each State or for each district within Texas, Louisiana, New Mexico, and California. Further, companies which supplied contract services for others were required to submit a separate report for each State. On each of the 1967 State and district reports, data on employment, oil and gas production or service receipts, and capital expenditures were requested by county. Therefore, the State total figures shown for the number of establishments represents the number of reports received, while county establishment counts represent the number of reports that indicated operation in the specified county. County data not reported on separate reports were obtained by allocating data on State or district reports on the basis of reported county data.

[2] Industries and industry groups with less than 100 employees are omitted. They are included, however, in higher-level totals. For industries and industry groups with 100 employees or more which cannot be shown because they would disclose figures for individual companies, the number of establishments is shown and the employment size range is indicated by one of the following symbols:

CC - 100-249 employees
EE - 250-499 employees
FF - 500-999 employees
GG - 1,000-2,499 employees
HH - 2,500 and over employees

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Wyoming, total	447	33	-	17	360	37
0 to 4 employees	225	13	-	6	194	12
5 to 9 employees	69	2	-	2	57	8
10 to 19 employees	54	5	-	1	45	3
20 to 49 employees	59	4	-	6	40	9
50 to 99 employees	21	3	-	2	14	2
100 to 249 employees	15	5	-	-	8	2
250 to 499 employees	2	-	-	-	2	-
500 to 999 employees	2	1	-	-	-	1
Albany county, total	13	2	-	-	9	2
0 to 19 employees	13	2	-	-	9	2
Big Horn county, total	36	-	-	-	33	3
0 to 19 employees	33	-	-	-	32	1
20 to 99 employees	3	-	-	-	1	2
Campbell county, total	73	-	-	1	72	-
0 to 19 employees	64	-	-	-	64	-
20 to 99 employees	7	-	-	1	6	-
100 to 249 employees	2	-	-	-	2	-
Carbon county, total	42	5	-	2	33	2
0 to 19 employees	39	4	-	1	32	2
20 to 99 employees	2	-	-	1	1	-
100 to 249 employees	1	1	-	-	-	-
Converse county, total	30	1	-	2	26	1
0 to 19 employees	27	1	-	1	24	1
20 to 99 employees	3	-	-	1	2	-
Crook county, total	42	1	-	-	35	6
0 to 19 employees	35	1	-	-	33	1
20 to 99 employees	7	-	-	-	2	5
Fremont county, total	62	14	-	-	47	1
0 to 19 employees	52	7	-	-	44	1
20 to 99 employees	6	3	-	-	3	-
100 to 249 employees	3	3	-	-	-	-
250 employees and over	1	1	-	-	-	-
Goshen county, total	1	-	-	-	1	-
0 to 19 employees	1	-	-	-	1	-
Hot springs county, total	32	-	-	3	29	-
0 to 19 employees	30	-	-	3	27	-
20 to 99 employees	2	-	-	-	2	-
Johnson county, total	20	-	-	-	18	2
0 to 19 employees	16	-	-	-	14	2
20 to 99 employees	4	-	-	-	4	-
Laramie county, total	10	1	-	-	7	2
0 to 19 employees	9	1	-	-	7	1
20 to 99 employees	1	-	-	-	-	1
Lincoln county, total	16	1	-	4	9	2
0 to 19 employees	10	-	-	1	8	1
20 to 99 employees	5	1	-	3	1	-
100 to 249 employees	1	-	-	-	-	1
Natrona county, total	145	9	-	-	133	3
0 to 19 employees	119	6	-	-	110	3
20 to 99 employees	23	3	-	-	20	-
100 to 249 employees	3	-	-	-	3	-
Niobrara county, total	23	-	-	-	23	-
0 to 19 employees	23	-	-	-	23	-
Park county, total	58	-	-	-	57	1
0 to 19 employees	50	-	-	-	49	1
20 to 99 employees	7	-	-	-	7	-
100 to 249 employees	1	-	-	-	1	-
Platte county, total	5	2	-	-	1	2
0 to 19 employees	3	1	-	-	-	2
20 to 99 employees	1	-	-	-	1	-
100 to 249 employees	1	1	-	-	-	-
Sheridan county, total	9	-	-	2	6	1
0 to 19 employees	7	-	-	1	5	1
20 to 99 employees	2	-	-	1	1	-

See footnotes at end of table.

TABLE 6. Number of Mineral Establishments in Major Industry Group, by Employment Size Class and County: 1967—Continued

(See appendix, Explanation fo Terms)

State, county, and size class	All mineral industries[1]	Metal mining (M.G. 10)	Anthracite mining (M.G. 11)	Bituminous coal and lignite mining (M.G. 12)	Oil and gas extraction (M.G. 13)	Nonmetallic minerals mining (M.G. 14)
Wyoming--Continued						
Sublette county, total	28	1	-	-	27	-
0 to 19 employees	25	1	-	-	24	-
20 to 99 employees	3	-	-	-	3	-
Sweetwater county, total	56	2	-	2	48	4
0 to 19 employees	48	1	-	1	44	2
20 to 99 employees	6	1	-	1	4	-
100 to 249 employees	1	-	-	-	-	1
250 employees and over	1	-	-	-	-	1
Teton county, total	1	-	-	-	-	1
0 to 19 employees	1	-	-	-	-	1
Uinta county, total	7	-	-	-	7	-
0 to 19 employees	7	-	-	-	7	-
Washakie county, total	29	-	-	-	29	-
0 to 19 employees	27	-	-	-	27	-
20 to 99 employees	2	-	-	-	2	-
Weston county, total	65	1	-	1	59	4
0 to 19 employees	60	1	-	1	57	1
20 to 99 employees	5	-	-	-	2	3

Standard Notes: - Represents zero.
[1]See table 5, footnote 1.

Appendix A

EXPLANATION OF TERMS

Employment and Related Items—The standard report forms requested separate information on production, development, and exploration workers as of a payroll period for each quarter of the year; other employees as of the 12th of March. The categories defined on the questionnaire are as follows:

All employees.—The category "all employees" comprises all full-time and part-time employees on the payrolls of mining establishments who worked or received pay for any part of the pay period which included the 12th of the months specified on the report form. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Also included are employees of miners paid on a per ton, car, or yard basis. Excluded are employees at the mine but on the payroll of another employer (such as employees of contractors) and employees at company stores, boarding houses, bunk houses, and recreational centers. Also excluded are members of the Armed Forces and pensioners carried on the active rolls but not working during the period. Officers of corporations are included as employees, but proprietors and partners of unincorporated firms are excluded.

Production, development, and exploration workers—This category includes employees (up through the working foreman level) engaged in manual work: using tools, operating machines, hauling materials, loading and hauling products out of the mine in mine cars or trucks, and caring for mines, plants, mills, shops, or yards. Included are exploration work, mine development, storage, shipping, maintenance, repair, janitorial, and watchmen services, auxiliary production for use at establishments (such as power plant), recordkeeping, and other services closely associated with these production and development operations at the establishment covered by the report. Gang and straw bosses and foremen who performed manual labor are included, as are employees paid on either a time- or piece-rate basis. Also included are miners paid on a per ton, car, or yard basis and the men engaged by them and paid out of the total amount received by these miners, and other employees at the establishment but not on its payroll if paid directly through its own employees, such as superintendents and foremen. Supervisory employees above the working foreman level are excluded from this category.

All other employees—Nonproduction personnel at the establishment include those engaged in the following activities: Supervision above the working foreman level, sales, highway trucking (by employees not entering mines or pits), advertising, credit, collection, clerical, and routine office functions, executive, purchasing, financing, legal, personnel (including cafeteria and medical), professional (such as engineers and geologists), and technical activities. Also included are employees on the payroll of the establishment engaged in the construction of major additions or alterations to the plant and who are utilized as a separate work force. (Workers engaged in regular maintenance and repair operations are not included here but are classified as production, development, and exploration workers.)

Central administrative office and auxiliary unit employees—Employees at an office located at or near the mining establishment are usually included in the mine report. Employment during the payroll period which included March 12 at separate central administrative offices or auxiliary units of multiestablishment companies and at those offices or units servicing more than one establishment were classified on the basis of the industry or principal industry served.

Mining Employees: Average Employment—The 1967 census report forms requested employment figures for "production, development, and exploration workers" for four selected pay periods (mid-March, May, August, and November). For "all other employees" only a mid-March figure was requested. Thus, the "annual average" is composed of an average of the four monthly figures for "production, development, and exploration workers" plus the March figure for "all other employees."

This approach was used to simplify the schedule format and lighten the reporting burden of respondents, since it was found that the average of these selected pay periods approximates closely, for most industries, the average employment for the year that would be obtained from 12 monthly pay periods. In the employment data shown in this report, the 4-month average is shown for all industries.

Mining Employees: Payrolls—This total includes the gross earnings paid in the calendar year 1967 to all employees on the payroll of reported establishments. Respondents were told they could follow the definition of payrolls used for calculating the Federal withholding tax. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, all bonuses, vacation and sick leave pay, and compensation in kind, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation. It excludes payments to the proprietor or partners, if an unincorporated concern. Excluded are payments to members of Armed Forces and pensioners carried on the active payroll of mining establishments. Also excluded are royalty payments to unions and costs of smithing, explosives, fuses, electric cap lamps, and mine supplies used in production and development work but charged to employees and deducted from their wages.

The 1967 census definition of payrolls, identical to that recommended to all Federal statistical agencies by the Bureau of the Budget, is the same as the 1958 and 1963 census definition. It should be noted that this definition does not include employers' Social Security contributions or other nonpayroll labor costs such as employees' pension plans, group insurance premiums, and workmen's compensation.

As in the case of employment and establishment figures, the annual payrolls of separate central administrative offices and auxiliary units of multiestablishment companies are included in the totals for individual industries and in State totals.

Production, Development, and Exploration Workers Man-Hours—This total consists of all man-hours of production, development, and exploration workers as defined above which were worked both on active days on which there was production or development work, and on inactive days when only watchmen, inspectors, repairmen, and other maintenance men were on duty. It represents all man-hours worked or paid for at the establishment including actual overtime hours (not straight-time equivalent hours). It *excludes* hours paid for vacations, holidays, or sick leave, when the employee was not at the establishment. Where employees elected to work during the vacation period, only actual hours worked by such employees were reported.

Cost of Supplies, Etc., and Purchased Machinery—A summary inquiry on the 1967 census report forms requested information on the cost of supplies, purchased machinery, minerals received for preparation, the cost of products purchased for resale, purchased fuels, and electric energy actually used during the year by each establishment, withdrawn from inventories, or received from other establishments of the company; and the cost of contract work. "Cost" refers to direct charges actually paid or payable for items used during the year, after discounts, and including freight charges and other direct charges incurred by the establishment in acquiring these materials.

To arrive at the industry total "cost of supplies, etc.," separate figures were obtained for (a) the total delivered cost of all supplies used, minerals received for preparation, and purchased machinery installed; (b) the amount paid for electric energy purchased; (c) the amount paid for all purchased fuels used for heat, power, or the generation of electricity; (d) the cost of work done by others on a contract, fee, or other basis for the account of the establishments (contract work); and (e) the cost of products bought and resold without further processing. The total excludes the cost of other services used, such as advertising, insurance, telephone, etc., and research and consulting services of other establishments. It also excludes overhead costs, such as depreciation charges, rent, interest, royalties, etc. It includes supplies, machinery, and equipment used in development and exploration of mineral properties and in capitalized repairs.

In the case of the cost reported for supplies, minerals for preparation, and purchased machinery received from other establishments of the same company or from a central supplies depot (whether at the same or different physical location), the respondent was asked to value the items at their full economic value as produced, plus freight and other direct handling charges. The respondent was asked to check, where possible, that such reported costs equal the value of shipments reported for the company's establishment producing and transferring the product, plus freight and other direct charges.

It should be noted that the cost of purchased fuel used under "c" above does not include fuels received for preparation, such as coal received for cleaning. Such costs were included in category "a" above.

Individual Supplies Used—In addition to the total cost of supplies, etc., and purchased machinery which every establishment was required to report, information was also collected on the consumption of major supplies used in mining. These supplies inquiries were restricted to those supplies which were important parts of the cost of production, exploration, and development of a particular industry and for which cost information was available from the firms' records. Information regarding the specific supplies consumed is shown in table 7.

Minerals for Preparation—On report forms for almost all mineral industries, except the petroleum and natural gas and contract services industries, a uniform inquiry was included on minerals prepared or treated at the reported establishments. Separated quantity figures were obtained on minerals prepared from three sources: (1) Crude minerals mined at the establishment (quantity); (2) crude minerals received from other establishments of the company or purchased from others (quantity and cost); and (3) crude minerals received for preparation on a custom or toll basis (quantity and estimated value).

Establishments consuming less than a specified amount (usually $5,000) were not requested to report the cost of a supply separately. Also, the cost of supplies for small establishments for which administrative records were used were imputed as "not specified by kind." (See text for importance of administrative records in the industry.)

Energy Used—The 1967 Census of Mineral Industries obtained data on the quantity and cost of fuels and electric energy used in mining which are comparable, in general, to such data obtained in the 1963, 1958, 1954, 1939, 1929, and 1919 censuses. For most industries, separate quantity and cost figures were provided on purchased coal, fuel oil, gas, gasoline, and electric energy, and a cost figure was obtained for other fuels.

To supplement the data on energy and energy materials purchased, data were obtained on the quantity of such items produced and consumed at the same establishment. In the minerals census, such data were obtained on coal, crude petroleum, and natural gas used at the producing establishment for power and heat, and for electric energy generated and used at the same mining operation. For electric energy, the figures actually collected represented total quantity generated (excluding generating-station use), and the quantity of electric energy sold. The difference between the sum of the first two quantity figures and the last figure represents approximate electric energy generated and used.

Capital Expenditures—In the 1967 census, mining companies were asked to report expenditures made during the year for development and exploration of mineral properties, for new construction, and for machinery purchased at their operations that were chargeable to fixed-assets accounts of the mining establishments and were of a type for which depreciation, depletion, or Office of Minerals Exploration accounts are ordinarily maintained. Capital expenditures during 1967 were to be determined as "additions completed during the year plus work in progress at the end of the year minus work in progress at the beginning of the year." Reported capital expenditures were to include work done on contract as well as by the mine forces. Expenditures for machinery and equipment were to include those made for replacement purposes as well as those for additions to capacity. Excluded from such expenditure totals are costs of maintenance and repairs charged as current operating expense. Also excluded are expenditures for land and mineral rights.

Wherever applicable, separate figures were provided on expenditures for (a) development and exploration of mineral property, (b) preparation (or treatment) plant construction and other construction, (c) new machinery and new equipment (including capitalized repairs and improvements), and (d) used plant and used equipment acquired from others.

Value of Shipments and Receipts and Net Shipments—The amounts shown as value of shipments for each industry (tables 1 to 5), and for individual products or classes of products (table 6), are the net selling values, f.o.b. mine or plant, after discounts and allowances, and excluding freight charges.

"Shipments" include all products physically shipped from the establishment during 1967 including material withdrawn from stockpiles and products shipped on consignment, whether or not sold in 1967. Prepared material or concentrates include preparation from ores mined at the same establishment, purchased, received from other operations of the same company, or received for milling on a custom or toll basis. For products transferred to other establishments of the same company or prepared on a custom basis, the company was requested to report the estimated value, not merely the cost of producing the items.

Multiestablishment companies were asked to report value information for each establishment as if it were a separate economic unit. They were instructed to report the value of all products transferred to other plants of the company at their full economic value; that is, to include, in addition to direct cost of production, a reasonable proportion of company overhead and profits.

The figures for "value of shipments and receipts" of an industry include, for all establishments classified in the industry, (a) the value of all "primary" products of the industry, (b) the value of "secondary" products which are primary to other industries, (c) the receipts for contract work done for others (except custom milling), and (d) the value of products purchased and resold without further processing. Receipts for custom milling are omitted from this total to avoid duplication with the value of custom milled ores included in "a" or "b."

For industry and industry-group totals, some duplication is introduced by the inclusion of materials transferred from one establishment to another for mineral preparation or resale. In general, where this duplication is significant, figures are shown for both "gross" and "net" shipments. The net shipments are obtained by subtracting the value of crude minerals transferred to other establishments for preparation and the value of resales from the gross shipments.

Comparable figures for gross and net shipments are available for 1963, 1958, and 1954. For years prior to 1954, data on shipments were not collected. Instead, the report forms requested data on the quantity and value of production. In general, the data for these years were edited to represent net production, excluding duplications because of mining and later milling of the same material.

Individual Products—In the 1967 Census of Mineral Industries, information was obtained on about 225 individual mineral product items. Product detail provides broad-level data on crude and prepared minerals. These figures serve as tie-lines to the correspondingly more detailed product statistics obtained annually by the Bureau of Mines. The extent of comparability of product statistics of the two agencies is indicated in a table shown at the end of the specialized text for each industry report.

The list of products for which separate information was collected was prepared after extensive consultation with industry members and representatives of the Bureau of Mines and other government agencies.

In general, figures were collected on both quantity and value of shipments. The shipments include commercial shipments and transfers of products to other operations of the same company. For products which are used to a significant extent within the same establishment for power or heat and for minerals mined and prepared in the same establishment, total production or separate data on production for such uses was collected. Typically, production was also collected for products for which there usually are significant differences between total production and total shipments as a result of stock changes.

For contract service industries, the amount received or due for services performed during 1967 was collected as a measure of output. For mine operators who also perform contract services, the amount received for such services was added to the total value of products shipped to determine total "value of shipments and receipts" for each establishment.

Table 6 of each report for individual industries provides the national and regional total shipments from all industries for each of the products primary to the industries covered in the report. In some cases, it provides separate totals for the amount of each product made by the primary industry and the amount made by other industries. Where available, production statistics are included in this table.

Value Added in Mining—Since the 1954 census, this measure has been computed by subtracting the cost of supplies, etc., and purchased machinery from the value of shipments and receipts plus capital expenditures.

Value added avoids the duplication in the value of shipments figure which results from the use of products of some establishments as supplies, energy sources, or materials by others. Moreover, it provides a measure, not only of value added in mineral production, but also in the development of mineral properties. For these reasons, it is considered to be the best value measure available for comparing the relative economic importance of mining among industries and geographic areas.

"Value of shipments" used in this calculation includes the shipments of all products of the mining establishment, together with receipts for contract work done for others.

"Capital expenditures" used includes expenditures for development of mineral properties as well as for new construction and major alterations of preparation plants and other structures and expenditures for new and used machinery and equipment. The

"costs" used in this calculation include costs charged to both the current and capital accounts. Both the shipments and costs figures include products bought and resold in the same condition.

For 1939 and earlier years, comparable data are not available for capital expenditures or for costs of capitalized supplies and equipment. However, a rough measure of value added in mining is computed for these years by subtracting from the value of net production and receipts, the cost of supplies, purchased fuels and electric energy, and contract work.

Value added in mining should not be confused with "national income originating in mining," as presented in the national income by industrial origin estimates compiled by the Office of Business Economics (OBE), U.S. Department of Commerce. The latter measure is the sum of factor costs incurred by an industry in production and is, therefore, a more "net" concept of value added than that used in the census of mineral industries. "Income originating" excludes, in addition to cost of materials, such other costs as depreciation charges; State and local taxes (other than corporate income taxes); allowance for bad debts; and purchases of services from other industries not included in the census contract costs, such as services of development and research firms, services of engineering and management consultants, advertising, telephone and telegraph expense, insurance, royalties, patent fees, etc.

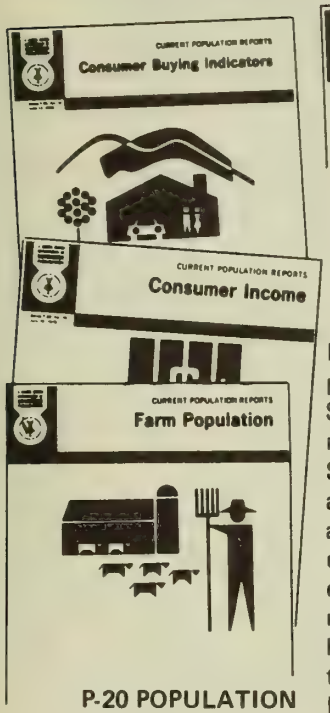
In part, the national income originating estimates are prepared from company rather than establishment data. This method results in the inclusion of some part of the net value added by manufacturing establishments of companies classified as being primarily mining; and conversely, in the exclusion of some part of the net value added in mining establishments of companies classified as primarily manufacturing. For mining as a whole, the net effect decreases income originating.

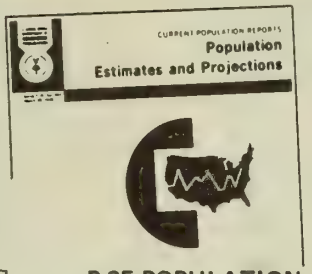
Fuels and Electric Energy—In table 7, information on the use of fuels and electric energy is provided for the year 1967.

Separate figures are shown for coal, fuel oil, gas, gasoline, and other fuels used for power and heat; purchased electric energy generated by mining establishments; and energy generated less sold. Figures are also shown for the quantity of coal, crude petroleum, and gas produced and used at the same establishment for power and heat.

CURRENT POPULATION REPORTS

In addition to the findings of the Census of Population, conducted every ten years, the Bureau of the Census publishes continuing and up-to-date statistics on population counts, characteristics, and other special studies on the American people. Data are issued in the eight separate series of reports described herein and released under the general title, Current Population Reports.





P-20 POPULATION CHARACTERISTICS.

Current national and, in some cases, regional data on geographic residence and mobility, fertility, education, school enrollment, marital status, numbers and characteristics of household and families, etc. Approximately ten reports each year.

P-23 SPECIAL STUDIES.

Infrequent reports on methods, concepts, or specialized data.

P-25 POPULATION ESTIMATES AND PROJECTIONS.

Monthly estimates of the total population of the United States; annual mid-year estimates of the population of States, by broad age groups, and of the United States by age, color, and sex; annual estimates of the components of population change. Estimates of the population selected metropolitan areas and their component counties. Projections of the future population of the United States and individual States. Approximately 20 reports each year.

P-26 FEDERAL-STATE COOPERATIVE PROGRAM FOR POPULATION ESTIMATES.

Population estimates for counties for selected States in which the figures are prepared by a State agency as part of the Federal-State Cooperative Program for Local Population Estimates.

P-27 FARM POPULATION.

(Census-ERS). Data on the size and selected characteristics of the farm population of the United States. Issued jointly with the Economic Research Service, U.S. Department of Agriculture. One or two reports each year.

P-28 SPECIAL CENSUSES.

Results of population censuses taken at the request and expense of city or other local governments. Subscription includes only the quarterly and annual summaries showing the total population figures for all the censuses conducted during the particular period. Individual reports issued for areas of 50,000 or more, showing the population by age, sex, and color are available separately. See "How to Order Reports." Five reports each year.

P-60 CONSUMER INCOME.

Information on the proportions of families and persons at various income levels. Also data on the relationship of income to age, sex, color, family size, education, occupation, work experience, and other characteristics. Two reports each year.

P-65 CONSUMER BUYING INDICATORS.

Information on the proportion of households reporting intentions to purchase automobiles, houses, and household equipment within a particular period of time. Also data on recent purchases. Quarterly.

HOW TO ORDER REPORTS

All Current Population Reports are sold as a single subscription for $14.00 a year. This price includes Series P-20, P-23, P-25, P-26, P-27, P-28 (quarterly and annual summaries only), P-60, and P-65.

Subscriptions to individual series are not sold separately but single copies of reports issued in all series except P-28 may be obtained from Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Individual city or area reports in the P-28 series may be ordered from the Bureau of the Census. Prices for these reports vary. For information on titles and prices of individual reports issued in all CPR series, write to Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

C3.186: (Nos.)

U.S. DEPARTMENT OF COMMERCE

BUREAU OF THE CENSUS

From the Bureau of the Census



CURRENT INDUSTRIAL REPORTS

Keep up-to-date with Bureau of the Census data covering over **5,000 products** *representing 40% of all manufacturing in the United States!*

The Bureau of the Census issues a continuing series of more than 100 monthly, quarterly, and annual reports on industrial production...inventories... and orders. Broad categories included in the Current Industrial Series include:

All Manufacturing Industries
- Manufacturers' Shipments, Inventories, and Orders
- Manufacturers' Export Sales and Orders
- Shipments of Defense-Oriented Industries

Processed Foods
Textile Mill Products
Apparel and Leather
Lumber, Furniture, and Paper Products
Chemicals, Rubber, and Plastics
Stone, Clay, and Glass Products
Primary Metals
Intermediate Metal Products
Machinery and Equipment

For further information on all reports included in these categories, frequency of reports, subscription prices, and a publications order form, free of charge, write to the Publications Distribution Section, Bureau of the Census, Washington, D.C. 20233.

U.S. DEPARTMENT OF COMMERCE/Bureau of the Census

☆U. S. GOVERNMENT PRINTING OFFICE : 1971 O - 412-882

REYNOLDS
BINDERY, INC.
MARCH1972

CB/Bureau of the Census Library
5 0673 01034298 1